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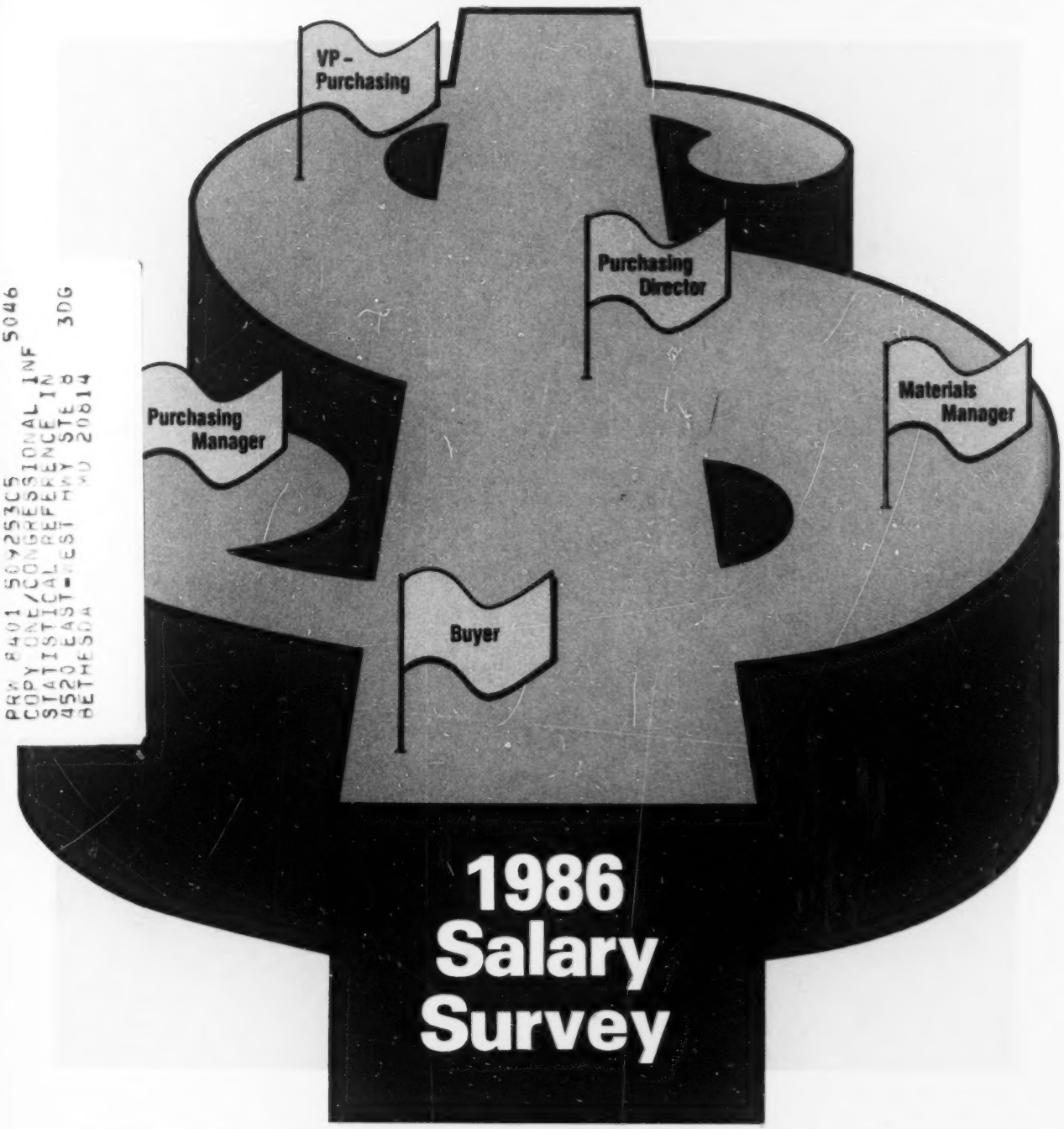

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1986 Salary Survey

Is service industry buying that different?

Trucking toward a million-mile vehicle

1986 Buyer of the Year award winners

PurchasingWorld

Helping you manage the business of buying

December 1986 Vol. 30 No. 12

Special report: 1986 Salary Survey

33 Pull your pay stub and see how you're faring
Paychecks got fatter, job satisfaction increased, and 1987 should bring another 6% increase (on average) in salaries for purchasing professionals. That puts the three-year climb in PM compensation at 20%. These are some of the findings of *PurchasingWorld*'s new 1986 Salary Survey, which features a first-of-its-kind Job Description Survey of 12 titles (by function) in 22 industry groupings.

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PW interviews Anthony J. Pedalino, vice president-materials and services for National Broadcasting Company to learn the answer.

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PW PREDICTS

Robert S. Reichard, executive editor

Some price hikes are inevitable

Bigger price increases seem inevitable in the quarters immediately ahead. But these boosts, for the most part, should be modest.

The signs of change are obvious. Recent N.A.P.M. Business Survey Committee studies show that more buyers are now reporting price increases than decreases. At latest report, some 20% of survey respondents were noting boosts—the highest such figure in more than two years. More significant, the new figures represent a sharp turnaround from the previous year and a half when "declines" consistently ran ahead of "increases."

This shift, along with supply-demand-cost forecasts, may also help explain the slight 1987 increase now being predicted by *PurchasingWorld* readers. Procurement costs are expected to advance 3.4% next year—up a bit from the current year's extremely low 1.3% estimate.

Import pressures could be another important factor in the changing industrial procurement outlook. Tags on foreign-made products, reflecting the weaker dollar, have been moving up for over a year now. If you exclude shaky energy tags because they tend to distort overall averages, import quotes are now being clocked in at 10% above the levels prevailing just 12 months earlier. And if you zero in on the highly fabricated items that come from Europe and Japan (where dollar devaluation has been more pronounced), the increases are a lot bigger than that. Some equipment lines have risen by more than 20% over this relatively short period of time.

But highly fabricated lines aren't the only ones likely to edge higher. Raw materials, after bumping along at bargain-basement levels for years, should begin to perk up a bit. In fact, *PW*'s sensitive raw material price barometer has jumped significantly over the past two months—recouping virtually all of the decline noted earlier this year.

This upward raw material price trend can be expected to continue—partly because of the weaker dollar, but also because of declining producer inventory levels and recent production cutbacks.

That's not to say that these quotes will take off. The combination of global capacity, relatively weak Free World economic growth, and the need for Third World countries to earn foreign exchange would certainly seem to preclude rapid price runup. A slow rise is more likely as.

Specialty adhesives

Chances are that you'll be buying a lot more specialty adhesives in the next few years.

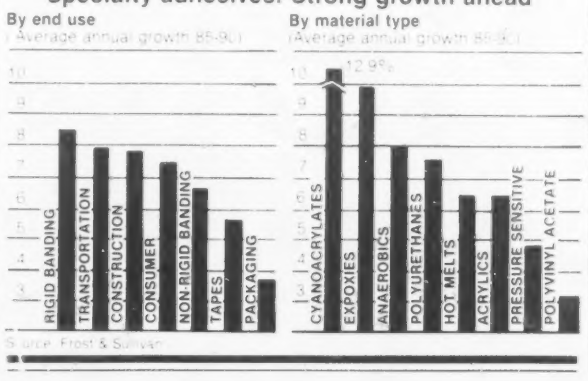
A new Frost & Sullivan study sees average annual volume rising about 5% through the end of the decade. And with dollar increases put at only 6% annually, this implies that price rises will average out at only 1% a year—well under the expected general inflation rate.

Frost & Sullivan sees biggest demand gains for rigid bonding applications where a better than 8% annual advance is anticipated. But other key areas such as transportation, construction, and consumer markets are also likely to show better than 7% growth rates.

Here's a more detailed rundown of some key end-use markets:

- **Packaging:** This number one use will advance at only a 3.7% annual rate. But hot melts will do better because of their use in corrugated cartons, and the shift away from solvent-borne adhesives.
- **Non-rigid bonding:** This market continues to grow in such areas as textiles, footwear, bookbinding, and abrasive and friction materials—with a 6.6% annual rate of growth in poundage seen through 1990 when 560 million pounds will be consumed. Hot melts are the key materials—and also the fastest growing.
- **Construction: Polyvinyl acetate leads in poundage but pressure-sensitive products have 3% of the dollar volume.** The overall market here should grow 7.8% a year—to 434 million lb and $456 million by 1990. Fastest growing (more than 10% a year) materials: acrylics, hot melts, polyurethanes, and epoxies.
- **Rigid bonding:** Big markets are furniture, millwork, doors, cabinets, and assembly bonding. The market is forecast to grow from 142.4 million lb last year to 189.8 million lb by 1990.
- **Tape adhesives:** Key materials are hot melts, acrylics, and polyurethanes. The growth rate is put at 5.7% a year—with 1990 totals reaching 253 million lb and $286 million.
- **Transportation:** Autos and aircraft are the big markets—with the latter expected to grow because of the advantages over riveting. Growth rate is put at 7.9%.

Specialty adhesives: Strong growth ahead



Chemicals

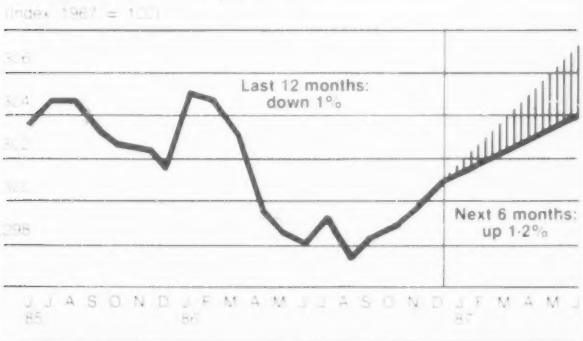
CURRENT SITUATION: Low feedstock costs continue to put a lid on price advances. Small 4Q hikes haven't held up—and overall averages are still about 1% under a year ago. **Overall chemical output is up 4-5% over 1985.** But gains have been uneven. While synthetic materials are up by more than 7%, organic chemicals show only a 1-2% increase. Inorganic markets like caustic soda and chlorine haven't grown much and the farm recession has cut demand for agricultural chemicals by more than 10%.

DEMAND: While total demand could be up 4% in 1987, organics will rise only 2.5%. Synthetic resins will do better than average—about a 5-6% gain—but most of this advance will be in plastics. Manmade fibers will be held back by imports and lower prices of competing cotton. Agricultural chemicals should bottom out. **A somewhat better trade balance may aid sales.**

SUPPLY: Operating rates, near 78%, tell the story. But there has been some tightening in plastics where the average utilization rate is put at 88%. But even here there's enough to go around—price easiness is proof. The industry continues to invest in modernization, but there has also been a 3% increase in capacity this year—offsetting some demand gains. Preliminary estimates now suggest another 3% capacity increase this year and another 3% jump for 1987.

PRICE OUTLOOK: Much depends on oil. Assume a $15/barrel oil quote and some increase seems unavoidable. But excess capacity and improving productivity should slow any boosts. Productivity has risen by 6% in 1986. **Best bet: a 1-2% overall price boost over the next six months—and a 2-3% advance for all of 1987. Some specific advances: basic inorganics (2%), basic organics (1%), plastics (3%), paint (3%), drugs (7%), and ag chemicals (0-1%).**

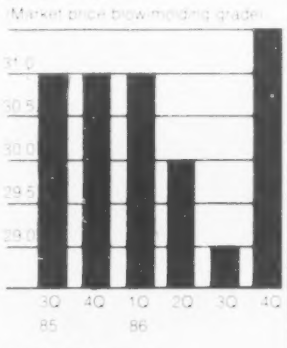
Chemical & allied products



Steel

January's 4% flat-rolled boost could be in trouble—with at least one firm booking first quarter spot business at fourth quarter 1986 levels. But stainless producers are still planning a 2-3¢/lb February boost on sheet, strip, and continuous mill plate. Overall demand, however, is disappointing. Consumption and domestic mill shipments are expected to drop a few million tons in 1987—to 83 million tons and 65 million tons, respectively. One bright spot: Domestic production costs are edging down to only $475/ton on average—actually lower than production plus transportation costs of our Japanese, French, and West German competitors.

High density polyethylene



High density polyethylene

A delayed 4¢/lb increase (originally scheduled for last August) has been partially implemented—with prices expected to settle about 2-3¢/lb above recent levels. The injection molding grade has moved up into the 25-31¢ lb range—with blow molding material fetching a somewhat higher 28-35¢ lb. Demand and supply also suggest basic underlying strength—with the industry operating at 94% of its potential this year. And next year, the figure could be in the high 90s—as less than 1% is added to HDPE's capacity base.

Zinc

Prices are beginning to top out at Noranda's big (230,000 metric ton year) Valleyfield, Quebec, refinery now that the five-month strike is over. Add in the lackluster outlook for autos and construction—and recent highs (50¢/lb) would seem to be unsustainable. But don't expect any precipitous drop—certainly not to the 33¢/lb low of this past April, for Free World smelter stocks are only in the 330,000 metric ton range, down from a year ago. Best bet: a mid-40s price by yearend or early 1987.

Copper

The buyers' market is likely to continue with few signs of the demand surge in construction, autos, and electrical equipment needed to push prices up. And a similar picture shapes up worldwide. This year, for example, should see about a 145,000 ton Free World demand decline (to 7.2 million tons) with next year's total ex-

Aluminum

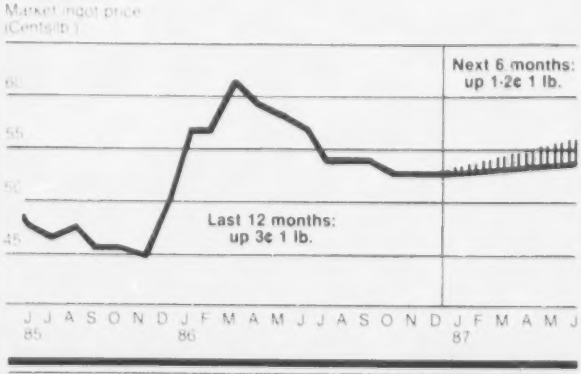
CURRENT SITUATION: The light metal remains shaky—with modest price erosion since October. Merchant ingot has been going for as low as 52¢/lb vs. the 62¢/lb price of earlier this year. And several North American primary producers are asking 58¢/lb for ingot—with billet off to near 66¢/lb. Cause is disappointing demand—buyers are hesistating after hedge buying in the spring. Other causes for weakness: 1) imports (up 51% this year) and 2) restart of capacity shut down by strikes.

DEMAND: Despite the current slowdown, usage continues to grow. Shipments, which were over 15.5 billion lb in 1984, fell slightly last year but were up about 4% during the first half of 1986. **A 2.5% overall gain is seen for 1986—with another slight increase in 1987.** Part of this optimism stems from the addition of 5-10 lb in new model cars, and the first commercial food can line. Long-term demand is moderately bullish—with average annual growth of 3-4% through 1989.

SUPPLY: No problems are anticipated. Inventories are high with global stocks of primary metal in the 2 million ton range and steady world production of 13 million tons/year is holding. There are also increased U.S. supplies because of recycling and higher imports. Finally, there's more than ample capacity.

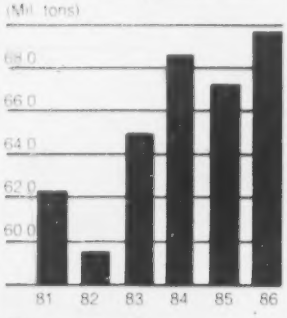
PRICE OUTLOOK: Merchant ingot won't rise much above 55¢/lb over the next few quarters—even with some pickup in demand. This should keep fabricated prices—especially in common alloy sheet—relatively weak. Traders and others who buy alumina on the spot market and have it toll processed at low-cost smelters will also keep pressure on prices. All this suggests that the 60¢/lb ingot quotes of early 1986 won't return until late 1987 or 1988.

Aluminum



pected to be up only 100,000 tons. Prediction: Prices will decline and fill in the 60-70¢/lb range. Chile, the world's largest producer, agrees, tentatively putting the 1987 average quote for its metal at 65¢/lb.

Paper and paperboard production



Paper and Paperboard

Corrugated prices continue to firm. But another boost in linerboard (to $350/ton) still seems a way off. Elsewhere, increases have been posted in uncoated white papers, bleached board, and the away-from-home tissue market. Also the oft-postponed boost in newsprint finally seems about to stick. Coated papers remain under pressure, with recent reductions noted in both coated free sheet and coated groundwood—with further slippage in the latter area possible as new capacity comes on stream.

ABS resins

Low import prices continue to put downward pressure on the market—as pipe-grade material from the Far East comes in at 52-55¢/lb. That's considerably under the prevailing 55-62¢/lb domestic level. Costs also suggest the lack of upward pressure—as higher styrene tabs are offset by declines in acrylonitrile and butadiene. Another price rise inhibitor: Capacity is being expanded and operating rates are expected to drift down into the low 60s by early next year.

Die casting

The industry is expecting some 1987 improvement as total demand reaches its highest level since 1984, according to the American Die Casting Institute. Specifically, a 7.6% increase is seen for the upcoming year, more than offsetting 1986's estimated 5.6% decline. Some of the more detailed forecasts: Aluminum will be up by as much as 10% in 1987 vs. a 2.3% decline this year. Magnesium, meantime, will gain. Zinc declines will slow—from 6.5% this year to about 3% in 1987.

Lead

The recent price run-up—with quotes up 4¢/lb since early September—has gone about as far as it can go. Indeed, with the battery-buying season coming to a close, some price attrition to the low-to-mid 20s may well be in the offing. An increase in lead battery imports also suggests weakness. Then, too, domestic battery shipments could be down slightly next

year—from 1986's 72.5 million unit total to about 71.6 million. Moreover, global consumption remains lackluster, with use expected to rise only 1% next year, not nearly enough to offset projected production increases.

Engineering plastics

Prices of polyphenylene sulfide (PPS) have been slashed 31%—to only $1.45/lb. Credit the drop to increased capacity as two new producers (Celanese and Toyo Soda U.S.) enter the market. Competition from other resins may also be a factor—notably from lower-priced thermoplastic polyesters. Not surprising, the new lower PPS tag meets polyester head on in price and is said to have superior qualities for many uses.

Interconnects

Look for more aggressive pricing by AT&T and the regional operating companies. The latter are expected to be extremely competitive, particularly in the PBX market. Adding to easiness is the fact that interconnect sales are expected to remain essentially flat over the next few years: demand increases are put at less than 1% annually through the end of the decade.

Semiconductors

New projections by In-Stat (a big econometric consulting firm) suggest price declines for the upcoming year. Specifically, worldwide volume is expected to be up about 4.5% more than estimated dollar values. The report also sees increases in U.S. sales. Thus the firm sees totals reaching $8.86 billion (up 5.1%)—on top of this year's estimated 4.2% advance. Integrated circuits will fare best—with the 1987 gain put at nearly 5.8% (to $7.25 billion). But the smaller discrete device sector should post only a 2.2% increase (to $1.62 billion).

Semiconductor US $ sales

(Billion)

Integrated circuits	Discrete devices
1985 6.61	1985 1.48
1986 6.85	1986 1.58
1987 7.25	1987 1.62

Source: In-Stat

Methanol

Supplies continue to outstrip demand. The result is rising inventories and more price erosion with the latter being aggravated by strong import competition. In any event, the total available supply (domestic plus imports) comes to more than 1.5 billion gallons this year—about 100 million above demand. As such, prices have tumbled to 26¢/gal (Gulf Coast, barge)—a far cry from the 40¢/gal quote at the beginning of the year. But some firming in 1987 is possible as consumption grows by 100 million gallons and a 100 million gallon plant is shut down.

Import prices

Take another hard look at domestic goods because import tags are still climbing. In fact, the average overseas price is up close to 3% over the past quarter and an even more impressive 10% *vis-a-vis* year-earlier readings.

Behind the runup has been the weakening dollar which is now really beginning to make itself felt in the form of higher overseas asking prices in such "strong currency" areas as Europe and Japan.

And the price rise is likely to continue—some forecasts are calling for further declines in the dollar.

- **Intermediate manufactured products:** All nine sectors of the sub-group posted price increases during the latest quarter. Nonferrous metals recorded the largest increase in over three years (5.8%), as rising zinc and platinum tags offset declines in copper and cobalt. Non-metallic mineral manufactures were up 5.1%, following a 3.3% rise in the previous quarter.
- **Machinery and transport equipment:** Six of the seven monitored groups in this area posted increases of more than 2% over the past quarter. Road vehicles and parts were up 2.1%, following a 3.0% boost during the previous quarter. And office machinery rose 1.3%, hard on the heels of a 4.0% boost during the previous quarter.

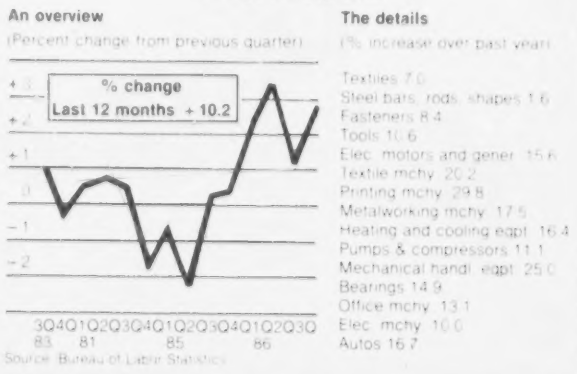
Other boosts over the past quarter were noted for electrical machinery and telecommunications equipment (both up 2.3%), general industrial machinery (up 3.5%), specialized machinery (up 4.1%), and metalworking machinery (up 2.8%).

- **Miscellaneous manufactured goods:** Professional, scientific, and controlling instruments rose 5.3% over the past three months and by close to 20% over the past year.

Elsewhere, boosts were recorded for plumbing, heating, and lighting fixtures (up 1.6% over the past quarter), imported footwear (up 2.5%), furniture (up 1.8%), and imported clothing (up 1.8%).

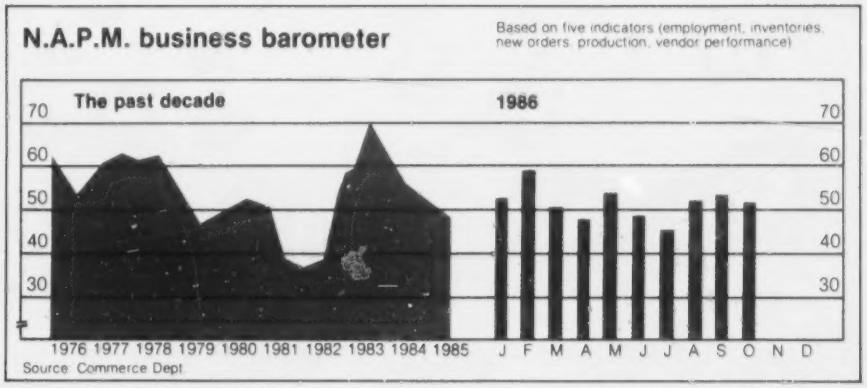
Import prices: still rising

(All imports except fuels)



Source: Bureau of Labor Statistics

BUSINESS DATATRAK


N.A.P.M. business barometer
Based on five indicators (employment, inventories, new orders, production, vendor performance)
The past decade
1986
70
60
50
40
30
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985
J F M A M J J A S O N D
Source: Commerce Dept.

KEY ECONOMIC TRENDS

Turndown not in cards, yet

Talk of a possible business slowdown is just that. It's just not in the cards.

Growth will continue to be disappointing—falling below the 4% or so that the Administration would like to see, but it will be growth nevertheless. GNP will advance at a 2-3% annual rate for at least another few quarters.

Why no downturn? First and foremost, the time-tested barometers are still pointing up, albeit at a shallow angle. That goes not only for the N.A.P.M. business barometer (still a shade above the neutral 50 level), but also for the Commerce Dept.'s "composite" index which has been edging up almost without interruption for about a year.

Cautious optimism is based on more than just statistical indicators. The key point to keep in mind: There are no bottlenecks, no inflation problems, no equity restraints, and no inventory imbalances—problems that traditionally have led to changes in the economic outlook.

Another healthy sign is the improvement in our trade balance in recent months. Much of this, of course, reflects a fall-off in imports—prodded by a weaker dollar.

Certainly, no one expects a miraculous turnaround, but the betting is that the trade deficit will fall from an estimated $170 billion (1982 dollars) this year to about $120 billion by the end of 1987. That's a big $50 billion improvement—enough to add about one percentage point to GNP in the year ahead.

Another bright spot—at least up until now—has been consumer spending. This shows up most clearly in the savings ratio (savings as a percentage of income). Note in the chart that the ratio is far under levels of a few years back—indicating that consumers have their wallets wide open.

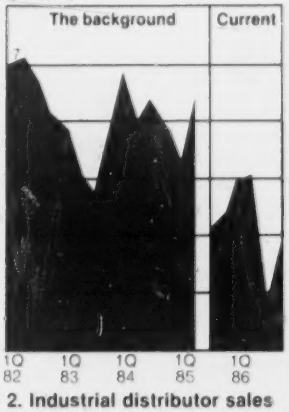
But the question is whether this trend will continue. Auto sales, for example, are bound to take a temporary breather after the low financing-inspired buying binge of the past fall. Even here it doesn't look all that bad. Sales are expected to approach 11 million units in 1987—not too much under this year's high 11.5 million figure.

Consumer real disposable income should also improve next year—probably something on the order of 2-3%. And if you assume a 4-4.5% savings rate (as most economists do), this should translate into increased gains in such other areas as furniture, appliances, and clothing.

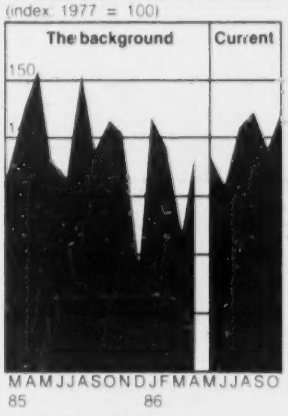
Even industrial production is looking a little better. Industrial distributor sales (a leading indicator of factory output) has turned up a bit in recent months. If nothing else, it

Leading indicators

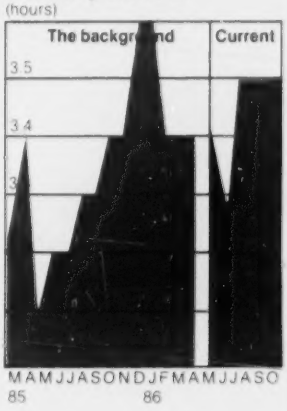
1. Savings rate
(percent)



2. Industrial distributor sales
(index: 1977 = 100)



3. Factory overtime
(hours)



means that factory managers are getting ready for some upturn in demand.

A somewhat better industrial climate also shows up in higher factory overtime figures. Overtime is usually strong when manufacturers are a bit more hard pressed to meet demand.

Another encouraging sign: the recent leveling in help wanted advertising after some modest decline.

All this doesn't mean, of course, that industrial production is going to take off. Far from it—gains in the consumer sector will be modest. Equally important, capital equipment isn't likely to show any appreciable advance. Military output will be up, and, when added to other upward forces, should produce a 3% increase at annual rate over the first half of 1987.

Fleeting trends

Mid-size cars are still the choice of fleet car buyers, according to a new National Association of Fleet Administrators (NAFA) survey.

Nearly three out of every five fleet cars purchased over the 1987 model year (58%) will be mid-size, compared with projections for compacts (24%), large-size cars (12%), and subcompacts (6%).

Other key findings of the study of 432 U.S. and Canadian fleets:

- Aggregate fleet purchases will come to 93,829 units—suggesting that about 25% of the existing fleet will be replaced this year.
- Company ownership is still the preferred means of possession—54% vs. 42% leased and 4% employee owned.

Imports do not figure very highly in 1987 acquisition plans—with foreign makes expected to come to only 1,350 units (less than 2% of the total). And even this is deceptively high since one fleet alone plans on buying 379 imports.

- An overwhelming 94% of the respondents say lower gasoline prices will not affect car selection. Of those that said gasoline would have some impact, eight said they would probably change from 6-cylinder to 4-cylinder engines. Others said the money saved would allow them to buy additional optional equipment.

More than 90% also said elimination of the investment tax credit would not affect car selection. Of the remaining fleets, almost all noted they would be forced to eliminate some options.

- More than half the fleets (232) give vehicle operators their choice of make of vehicle; 164 give them choice of model; 155 give them choice of vehicle accessories; and 51 give them choice of engine.

Get moving

Don't wait too much longer if you're looking for bargains in commercial and industrial real estate.

Reason: Vacancy rates—near all-time highs—are finally beginning to show signs of topping out. And this trend is likely to continue—judging from a fall-off in both new office construction (now running at only a $29 billion annual rate vs. $32 billion last year) and new factory and warehouse activity.

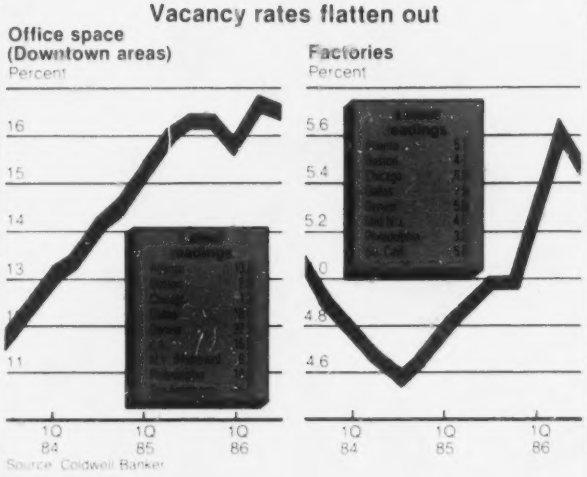
But it will take time for these trends to make a significant impact. Meantime, it's a buyers' market—particularly in office space where downtown and suburban vacancies (16.7% and 23.8% respectively—see chart) are resulting in such concessions as free rent for a portion of the lease, long leases, and office preparation at the landlord's expense.

According to a new survey by Coldwell Banker, new capacity in downtown office areas is especially evident in New York, Dallas, and Chicago—with about five million square feet of new office space being completed in these cities.

Also, eleven downtown markets show vacancy rates of 20% or more—including Dallas, Denver, Fort Lauderdale, Miami, Nashville, New Orleans, Oklahoma City, Orange County (CA), Orlando, Phoenix, and San Antonio.

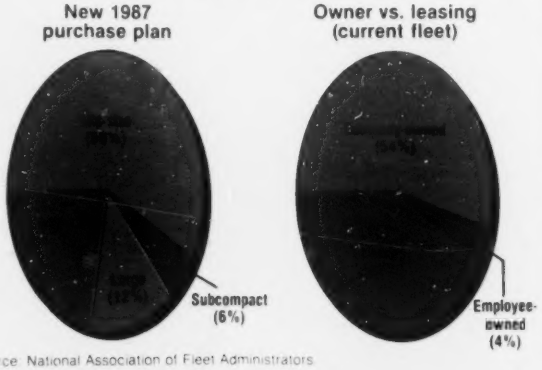
The overall rate for industrial vacancies is finally beginning to edge low-

Vacancy rates flatten out



Source: Coldwell Banker

Fleet car strategy at a glance



Source: National Association of Fleet Administrators

er—to 5.5%. But that's still a full percentage point above 1984 levels prevailing.

Areas with highest industrial vacancies (6% or more) include Charlotte, Chicago, Dallas, Houston, Kansas City, Miami, Northern and Central California, and St. Louis. Areas with lowest rates here (under 4%) include Columbus, Nashville, Philadelphia, Portland (OR), Seattle, and Washington D.C.

CURRENT PRICES

Prices registering tilt-upward

Industrial producer prices continue a moderate upward trend—first noted earlier in the fall.

The latest increases can hardly be called alarming. They averaged less than 1% over the last three months, but do represent a shift from the first half of 1986 when sagging energy tags actually produced a declining trend in overall industrial prices.

Aside from a turnaround in energy tags, scattered price increases over the past few months have been reported in the industrial chemical, plastic resin, paper, metals, and machinery sectors. Some component parts have managed to edge up a bit, too.

It's not altogether certain that all of the increases will hold up in the marketplace, especially in the cases of industrial chemicals and plastics. Buyers report considerable success in holding down or postponing announced boosts.

Metals, too, have to be regarded as a mixed bag. Recent increases in zinc and lead may not have much staying power—as seasonal declines in demand and increased production produce easier markets by early 1987. Recent steel increases could be vulnerable once strike problems at USX are fully resolved.

Construction materials, while up slightly, also have their soft spots. Thus cement has slipped a bit over the past month—and such oil-related products as asphalt paving now trail year-ago levels by significant percentages.

The scattered increase in capital goods areas should continue, however, despite the rather lackluster demand pattern. Reason: Overseas prices have been moving up substantially since many of these imports come from Japan and Europe—areas where

This month's breakdown

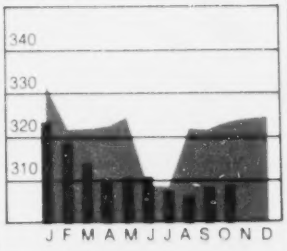
	Latest level (Nov)	% change from: Month ago	Year ago
Bearings	356.7	-0.1	0.7
Bolts, nuts, etc	276.6	-0.4	-0.1
Chemicals, inorganic	296.3	0.6	-1.1
Chemicals, organic	323.9	0.7	-8.8
Concrete products	324.3	-0.2	0.4
Corrugated cartons	275.0	1.0	3.8
Cutting tools, small	291.9	-0.1	1.2
Electric lamps (bulbs)	347.5	0.8	-0.1
Electronic components	203.3	0.2	2.9
Fans and blowers	365.9	0.0	1.7
Foundry and forge products	361.7	0.0	-0.7
Fuel oil (residual)	452.1	8.3	-48.9
Furniture, commercial	320.7	0.7	3.1
Gasoline	310.9	-8.2	-43.9
Glass, flat	232.7	0.1	2.0
Glass containers	400.8	0.0	3.2
Gypsum products	341.9	1.0	0.6
Hand tools	385.5	0.4	2.3
Hand tools, power driven	241.1	1.1	2.8
Industrial furnaces	396.0	0.1	1.2
Integrating and measuring instruments	237.3	0.0	1.9
Internal combustion engines	353.9	0.0	2.1
Lubricating oil	356.7	-0.4	-5.1
Lumber millwork	319.7	-0.1	-1.2
Material handling equipment	297.0	0.0	1.1
Metal containers	362.5	0.0	1.3
Metal mill shapes (nonferrous)	299.8	-0.4	-2.4
Metal tanks	297.8	0.2	-2.5
Motors and generators	352.3	-0.3	0.3
Motor trucks	331.4	12.4	6.0
Office and store equipment	154.7	0.2	0.7
Paperboard	280.9	1.5	5.7
Paper boxes and shipping containers	274.1	0.2	2.5
Paper office supplies	239.6	0.6	1.6
Paint	282.4	0.0	1.7
Plastic resins	292.7	0.3	-2.7
Precision measuring tools	269.8	-0.6	2.8
Pumps and compressors	363.2	0.0	1.3
Refractories	370.8	-0.7	-0.1
Rubber belts and belting	337.1	-0.1	-1.2
Scales and balances	232.7	0.0	1.6
Steel products	349.9	0.3	-3.7
Switchgear	286.1	-0.3	1.0
Textiles, synthetic fibers	148.8	-0.4	-0.7
Textiles, gray fabrics	149.6	-0.4	-1.0
Tires and tubes	234.0	0.0	-0.7
Transformers and power regulators	233.6	-0.2	0.3
Welding equipment	301.8	0.1	3.2
Wire and cable	205.5	0.0	-0.1

Industrial prices

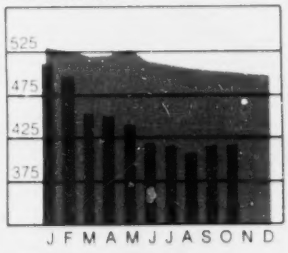
(Index 1967 = 100)

1985 ■ ■ 1986

All items

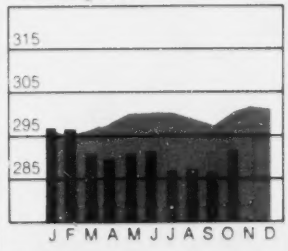


Raw materials

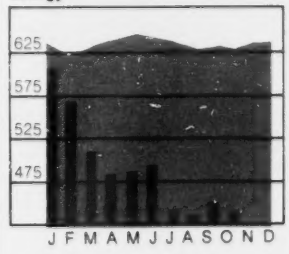


Semifabs, components

Finished goods



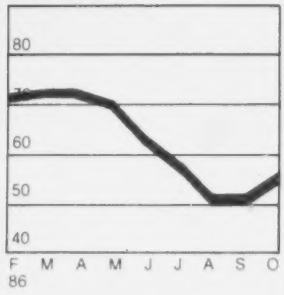
Energy



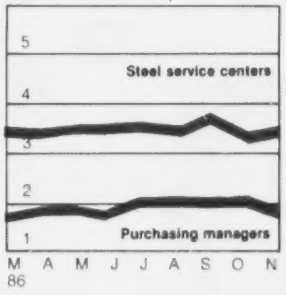
Source: Bureau of Labor Statistics

Steel

Operating rates

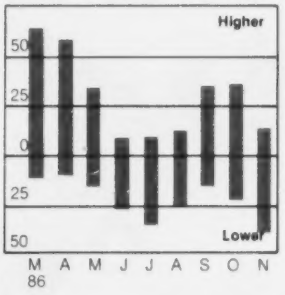


Inventories
(Months supply on hand)

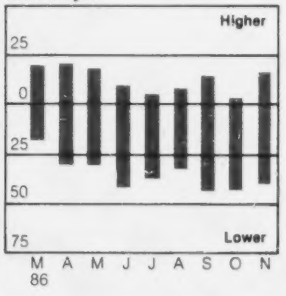


Demand
(Percent of respondents)

Service centers incoming orders



Steel buyer



currencies have appreciated significantly relative to the dollar.

Paper products should also continue to edge up. But even here the gains will be quite moderate—as some offsetting weakness persists in the coated paper area.

What does it all add up to? Further inching up in the aggregate industrial producer price index can be expected—with about a 3% annual rate of rise likely over the next few months. Even so, it may be next spring before the overall index (weighted down by earlier energy declines) begins to top year-ago levels again.

STEEL SCENE

Steel demand still down

There's still no sign of any appreciable pickup in steel demand. Indeed, things could get worse before they start getting better.

Both buyers and service centers are agreed on this point. An impressive 39% of steel-buying purchasing managers responding to the latest N.A.P.M. survey feel that their receipts of the metal will be heading down over the next three months—even more than twice as many as the 16% who contemplate some increases.

Steel distributor figures are even more depressing —40% of those responding to the latest Steel Service Center Institute (SSCI) survey feel incoming orders will be down over the next three months, compared to only 15% who feel some increase in incoming business may be possible.

The latter figures are particularly disappointing. Over the previous two months when a similar question was posed, those betting on increases actually outpaced those fearing declines.

This, perhaps, helps to explain why Andrew G. Sharkey, SSCI president, is now estimating a 2% decline in this year's total distributor shipments—a figure suggesting only about a 20 million-ton shipping year. This estimate is especially disturbing since service centers were in the plus column as recently as early summer.

Profit margins are another steel service center worry. As Sharkey puts it, "Industry overcapacity, deflationary pressures, and the competitive realities of a buyers' market are the primary reasons service center profitability has not kept pace with shipping volume."

This competitive situation is also showing up on the mill level where five of the nation's largest integrated steel makers reported third quarter losses. And the situation is not likely to change much. Thus, despite recent work stoppages, the industry's plans for first quarter 1987 price boosts are running into flak.

Service center replies as to what they'll be paying mills for steel in the months ahead also suggest a continuing competitive situation. Specifically, the majority of respondents (55%) feel mill tags over the next six months will remain at or below current levels. Contrast that to March and April when only 12% felt that prices would hold steady or drop.

Behind all this weakness are less-than-hoped for demand, close-to-the vest inventory policies, and continuing import competition. Looking at each of the above:

- **Demand:** Domestic mill shipments for the year as a whole now look to reach only 68 million tons—part of a continuing decline which saw 1984 and 1985 shipments at 74 million and 73 million tons, respectively. And next year, the figure could drop to only 65 million tons as such key steel-consuming sectors as autos, construction, and capital equipment all remain level or even drop a bit.
- **Inventories:** Adding to the problem is the fact that no one is buying a ton more than is absolutely necessary. Buyers and service centers, for example, have cut day's supply about 5% over the past few months. And little change is expected—with

Import prices
(Compared to domestic)

Steel buyers

ABOVE 16%

SLIGHTLY BELOW 36%

SUBSTANTIALLY BELOW 0%

Service centers (carbon)

ABOVE 3%

BELOW 24%

10-20% BELOW 0%

OVER 20% BELOW 0%

Source: Steel Service Center Institute, NAPM Steel Buyers Committee

both groups feeling that stock levels are still on the high side.

Moreover, no one seems really concerned about tightness in such product areas as coated sheet. Reason: The feeling is that things will loosen again once strike problems are resolved.

■ **Imports:** Incoming shipments still take up more than 20% of the market—as overseas prices remain low relative to comparable domestic levels. This is especially true in stainless where 21% of the service centers still report price breaks in the big 11-20% range.

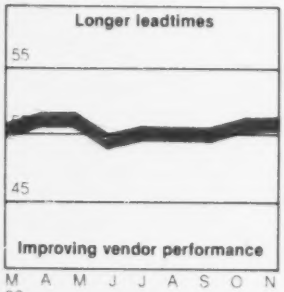
But there are some signs that imports could ease up—because of quotas, the weakening dollar, and the considerable progress being made by U.S. mills to pare costs.

On the latter score, U.S. productivity has jumped by more than 30% since 1982. Combined with a weaker dollar, it means that the average cost to produce a ton of domestic steel is now below that of such traditional competitors as Japan and West Germany.

Monthly procurement status report

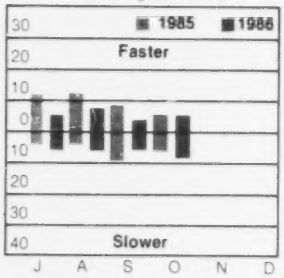
Leadtime index

A "diffusion" index based on 158 key commodities. Above "50" indicates a tendency for leadtimes to stretch out. Below "50" suggests improving vendor performance.



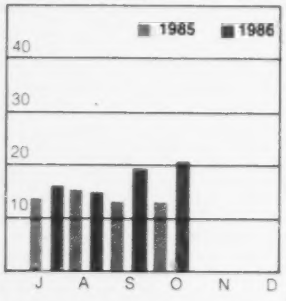
Delivery performance

(Percent reporting deliveries)



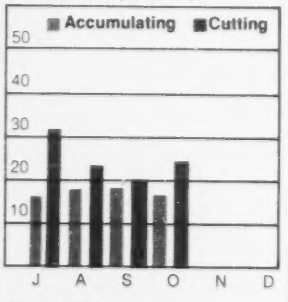
Forward commitments

(% committing 90 days or more in advance)



Inventory strategy

(Percent of respondents)



Source: NAPM

changed from earlier in the year.

■ *PW*'s exclusive leadtime index registered just 51—only one point above the 50 mark where stretchouts and shrinkages balance each other out.

■ N.A.P.M.'s speed of delivery yardstick shows that the 8% reporting slower deliveries was offset by the 6% noting speedups. More significant, an overwhelming 86% continue to report no change.

Nor are these the only indicators of a fairly problem-free environment. More to the point: 1) Only one item appears on the N.A.P.M. short supply list—titanium dioxide, 2) nobody seems in a rush to build inventories—with parers still outnumbering accumulators, and 3) 55% of queried buyers are committing 30 days or less in advance—unchanged from month-earlier levels.

PMs also remain optimistic about the future.

A new check on factory operating rates—as reported by the Federal Reserve Board—seems to support this PM's opinion. Thus overall factory utilization rates are currently being clocked in at the 79% level—some six percentage points under the 85% cut-off point that traditionally has separated a buyers' from a sellers' market.

And what's true of the overall average is pretty much the case across the board. Indeed, virtually every single industry monitored by the Fed is operating at or under its preferred utilization rate.

More significant, there's little to indicate any basic change. Industrial production forecasts, for example, show output rising at a 3% annual rate for at least another six months—not that much above the current 2% rate of new capacity additions.

In short, the buyers' market is here to stay.

PROCUREMENT STATUS

No-sweat procurement

Leadtimes have inched up a bit over the past month. But much of this was due to some strike-induced steel stretchouts. Add in the normal fall pickup in activity—and the situation remains basically un-

Leadtimes and availability

Chicago: The USX strike has upped steel leads—with these new extended weekly waits noted: c-r, h-r, and coated sheets (10), heavy and light plates (3-6), and h-r bars (4-5). MOS semiconductors are also out (to 16-22)—with ICs remaining at this same level. No change in capacitors (10-19), and resistors (6-12).

Cleveland: Moving out to these longer weekly waits are steel canisters (2), coil coating paint (3), and polyethylene (2-3). But plastic packaging materials edged in (to 4-5). Not much change in hardwood (2-3), softwood (1-3), waterproof papers (4-5), corrugated boxes (2-3), cold finish aluminum (8), and skids (1-3).

Los Angeles: Modest stretchouts (new weekly leads in parenthesis) for aluminum tubing (5-7), paperboard cartons (4-5), and domestic fasteners (8-10). Foreign fasteners remain unchanged at 16-18—as do galvanized steel (12-14), brass castings (8-19), pumps (10-12), custom seals and gaskets (5-7), and standard valves (10-12).

Houston: Metals remain relatively easy—with leads generally in the 0-4 week range. Alloy pipe activity is up. But no problems are antici-

pated—despite some plant closedowns. Other typical leads (in weeks): galvanized steel coils (16), steel fasteners (2), plastic bottles (6), polyethylene and polypropylene (4-5).

Philadelphia: Some shrinkage is noted (to these new weekly waits) in stainless extruded tubing (5-6), copper alloy tube (6-8), and copper alloy sheet, bar, and plate (6-8). But high temperature metals are out a bit (to 10-12). Other metal leads: carbon round coil from mill (8-10), and stainless round coil from mill (10-12).

Pittsburgh: Another month of relatively unchanged weekly leads—with key lines shaping up as follows: corrugated and folding boxes (3-4), wirebound boxes (4-5), multiwall bags (6), plastic packaging material (2-3), plastic bags (3-4), waterproof papers (8), steel strapping (2-3), PVC resins (6), alloying metals (2-3).

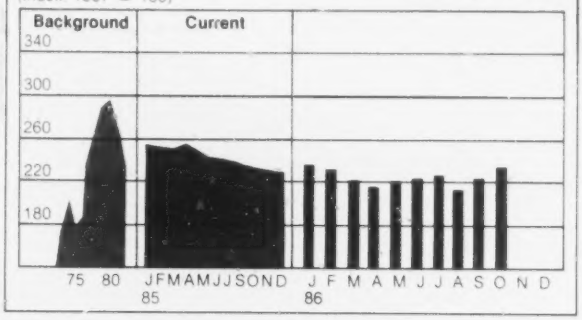
Leadtimes (in weeks)

	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	4	4	4
C-R Sheet (Chgo)	10	7½	7½
Plate (Phil)	3½	3½	3½
Plate (Chgo)	4½	3½	2½
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	5½	5½	5½
H-R Bars (Chgo)	4½	4	4
Cold-Drawn Bars (Phil)	5½	5½	5½
Galvanized (LA)	13	13	13
Galvanized (Chgo)	6½	6½	7½
Structurals (Chgo)	4½	4½	4½
Structurals (Hous)	17	17	17
Tubing (Phil)	5½	5½	5½
Grey Iron Castings (LA)	7	7	9
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	6
Pipe, Carbon (Hous)	17	17	17
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	14½	14½	13
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	7
ICs (Linear) (Phil)	9	9	11
Motors (Phil)	9	9	10
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	9	9	9
Relays (Chgo)	15	15	15
Resistors (Chgo)	9	9	9
Resistors, Wirebound (Phil)	5	5	5
Transformers (Chgo)	10	10	10
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	2½	2½	1½
Plywood (Chgo)	3	3	1½
Plywood (Phil)	1½	1½	1½
Softwood (Clev)	2	2	2
Softwood (Phil)	½	½	½
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Naphthalene (Chgo)	2	2	2
Paint (LA)	4	4	4
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	2	2	2
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	2½	2	2½
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	2	2	2
PVC Resin (Pgh)	6	6	6
Titanium Dioxide (LA)	1	1	1
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	2½	2½	2½
Cartons, Corrugated (Hous)	2	2	2
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3
Shrink Film (Chgo)	6	6	6
Shrink Film (Clev)	1	1	1
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	1	1	1
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	3½	3½	3½
Glassine (Clev)	4½	4½	4½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	1	1	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NON-FERROUS			
Aluminum Coil (Chgo)	11	11	13
Aluminum Plate (Chgo)	12	12	12
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	11	11	12
Brass Castings (LA)	9	9	7
Brass Rods (Chgo)	9	9	7½
Brass Sheet (Chgo)	5	5	5
Brass Tube (Chgo)	4	4	8
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6
Copper Tube (LA)	7	7	7
Copper Tube (Phil)	5½	5½	5½
Lead (Pgh)	2	2	2
Magnesium (Pgh)	2	2	2
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	2	2	2
Wire, Specialty (LA)	5	5	5
Zinc (Pgh)	3	3	2
MISCELLANEOUS			
Bearings, Domestic (Phil)	2	2	2
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	48	48	48
Compressors, Reciproc. (Hous)	39	39	39
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	9	7	7
Fasteners, Std. (Phil)	3	3	2½
Heat Exchangers, Carbon-alloy Steel (Hous)	21	21	21
Heat Exchangers, Hi-pressure (Hous)	26	26	26
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	1½	1½	1½
Pumps (Hous)	24	24	24
Pumps (LA)	11	11	13
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	17
Welding Supplies (Hous)	5	5	5

Raw material price barometer

(Index: 1967 = 100)

Latest month	234.8
Month before	221.2
Year ago	236.9



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd, Phila., cwt. merchant quality	23.95	23.95	23.95
Steel, bars, Pitts., cwt.	23.95	23.95	23.95
Steel, bars, C.R., Pitts., cwt.	31.00	31.00	29.25
Steel, plates, Pitts., cwt.	18.25	18.25	23.25
Steel, plates, H.R., Pitts., cwt.	18.25	18.25	23.25
Steel, sheets, C.R., Detroit, cwt.	25.90	25.90	27.85
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.525	.555	.445
Antimony, N.Y., dealer, lb.	1.18	1.12	1.33
Beryllium-copper, cost ingot, lb.	5.65	5.65	5.35
Brass, red, 85%, [sheet], lb.	1.27	1.29	1.30
Brass, yellow, [sheet], lb.	1.22	1.24	1.25
Cadmium, N.Y., dealer, lb.	1.07	1.05	0.77
Copper, electrolytic, wire bars, refd., lb.	.63	.65	.67
Copper sheet, over 24 in., lb.	1.36	1.38	1.39
Lead, common, N.Y., lb.	.268	.240	.190
Magnesium, pig ingot, [99.8%], lb.	1.53	1.53	1.48
Mercury, 20 fl. lots, N.Y., fl.	192.00	178.00	315.00
Molybdenum, oxide, dealer, lb.	3.15	3.15	2.65
Nickel, cathode, dealer, lb.	1.74	1.79	1.90
Platinum, dealer, oz.	537.00	604.00	328.00
Silver, N.Y., oz.	5.73	5.71	6.03
Tin, N.Y., dealer, lb.	2.86	2.58	5.38
Zinc, Prime West, East St. Louis, lb.	.465	.440	.360
Zinc, die casting alloy, No. 3, lb.	.525	.505	.425
PAPER			
Uncoated book #3 offset, ton	850.00	850.00	850.00
Watermarked bond, ton	985.00	985.00	985.00
Gummed sealing tape, carton	16.24	16.25	16.13
Shipping sacks, ton	390.00	390.00	390.00
Solid bleached paperboard, ton	580.00	580.00	550.00
Kraft linerboard, 42 lb., unbleached, ton	320.00	320.00	290.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.214	.218	.240
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.045	1.030	1.045
Cotton middling, 1", N.Y., lb.	.433	.398	.568
Printcloth, 48", 80x80, N.Y., spot, yd.	1.05	.82	.68
Army duck, 37", 13 oz., yd.	1.40	1.45	1.30
Blended printcloth, 64", 78x54, yd.	.80	.78	.85
20s combed yarns	1.74	1.74	1.95
Wool 64s, Staple, lb.	1.90	1.90	2.03
CHEMICALS			
Acrylonitrile, tanks, lb.	.395	.395	.455
Ammonia, anhydrous, tankcars, Gulf Coast, ton	80.00	80.00	N.A.
Benzene, petroleum, tanks, Houston, gal.	.85	.81	1.14
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.58	.58	.58
Formaldehyde, USP, 37% [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.91	.91	.91
Methanol, shy, tanks, 4,000 gals, f.o.b. Gulf Coast plants	.28	.28	N.A.
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.27	.27	.27
Polyethylene resin, low density, linear film grade (market place), lb.	.280	.255	.280
Polypropylene, homopolymer grade (market price), lb.	.325	.320	.350
Polystyrene, general purpose grade (market price), lb.	.35	.33	.35
Polyvinyl chloride, pipe grade (market price), lb.	.275	.275	.260
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.22	.22	.26
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	157.50	157.50	157.50
Sulphuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg. carlots, lb.	.77	.77	.69
Xylene, tanks, gal.	.80	.80	1.36
BUILDING MATERIALS			
Lumber, 2x4, fir, mbf, cl.	328.35	332.65	319.65
Lumber, 2x2, pine, mbf, cl.	316.60	315.20	298.00
Plywood, plyform, ¼", msf, cl.	592.35	592.90	582.30
Plywood, ½", msf, cl.	392.45	390.10	381.80
Cement, bulk, ton, tl.	63.28	63.43	64.73
Sand, ton, cl.	6.62	6.62	6.36
Ready-mix concrete, 3,000 psi/cu. yd. 15 cu. yd.	48.15	45.96	48.00
Crushed stone, 1½", ton, cl.	7.83	7.73	7.80
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl.	0.82	0.82	0.82
Gypsum sheathing, ½"x1"x8", msf, tl.	215.07	215.07	212.44
Brick, common, per thousand, tl.	186.51	186.01	184.53
Asphalt paving, AC-20	127.36	136.69	175.86
Concrete sewer pipe, 12", prem. joint, per foot, cl.	7.36	7.36	7.14
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf, bbl.	10.50	11.00	20.00
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	14.75	14.75	27.75
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	.415	.360	.750
Gasoline, 94 oct., reg., Chi., tank car, gal.	.436	.415	.813
Heating oil, No. 2, Chi., bulk, gal.	.428	.411	.860
Heating oil, No. 2, N.Y., bulk, gal.	.420	.420	.878
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.50
Jet kerosene, gal.	.433	.418	.853
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	.240	.240	.345
SCRAP MATERIALS			
Steel, No. 1 hvy., dlvd., Pitts., ton	78.00	76.00	69.00
Steel, No. 1 hvy., dlvd., Chi., ton	72.00	70.00	68.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	.545	.550	.550
Copper, No. 2, East, wholesale buy, dlvd., lb.	.465	.475	.470
Brass, red, East, wholesale buy, dlvd., lb.	.505	.510	.510
Brass, yellow, East, wholesale buy, dlvd., lb.	.330	.310	.330
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.315	.340	.295
Alum., mixed clip, E., wholesale buy, dlvd., lb.	.330	.360	.320
Zinc, old, East, wholesale buy, dlvd., lb.	.200	.170	.110
Lead, clean solids, East, wholesale buy, dlvd., lb.	.168	.140	.100
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	28.00	28.00	9.00
Paper, old corrug. box, dlr., N.Y., ton	24.00	23.00	7.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	.09	.09	.09
White winders, No. 1, dlr. buy, f.o.b. N.Y., lb.	.105	.110	.160

[Sources: Metals Week; Engineering News-Record (20-city averages); Platt's Oilgram Price Service.]

Cutthroat markets killing inflation

Robert S. Reichard executive editor

The nation's industrial purchasing managers do not seem particularly concerned about any new outbreak of inflation.

While they see some acceleration in the rate of price increase in the year ahead, most feel any acceleration will be moderate. A new nationwide survey of *PW* readers indicates an overall 1987 procurement cost advance of about 3.4%—not that much above this year's low 1.3% increase.

In the words of one Midwestern buyer, "It would be unrealistic to expect a repeat of this past year when energy tags exerted a strong downward pull. But given all the demand, supply, and cost factors, I can't see quotes moving up by much more than a few percentage points—even if demand perks up a bit."

Some of the just-completed survey's more specific findings:

- **The overall price trend:** While roughly half the queried PMs see some price acceleration for 1987, seven out of ten say the boosts will only be in the "3%-or-under" range (see chart). And even this doesn't tell the whole story—16% feel they can still hold costs at or under 1986 levels.
- **Sector-by-sector variation:** Best showing will be in the transportation area where freight rates are expected to rise only 1.2%—not much more than the 0.8% advance estimated for 1986. Other anticipated increases (in ascending order): machinery (1.4%), energy (1.8%), office equipment (2.2%), and raw materials and component parts (both just shy of 4%).
- **Strongest price areas:** Buyers mention steel and paper products, such as corrugated containers, as the lines most likely to sport bigger-than-average price advances over the coming year. Other products singled out for close monitoring include fabricated metal parts, services, and imports where a weaker dollar is expected to put upward pressure on many foreign suppliers.
- **Weakest price areas:** Several categories of equipment, including machine tools, are high on the list here. Other sectors where price boosts should be hard to come by: nonferrous metals, electronic components, computers, computer software, other types of electronically-oriented office equipment, textile mill products, paint, and industrial chemicals.
- **Upward tugging factors:** In addition to somewhat stronger oil prices, other forces likely to play a role in a slightly faster rate of inflation for 1987 include 1) a modest pickup in demand (a 2-4% increase in industrial production vs. less than 1% this year), 2) supplier cost pressures, 3) somewhat higher factory operating rates, and 4) higher import tags.

But as one purchasing executive adds, "These will all be playing roles. It still looks like a buyers' market in most sectors—and we intend to do all we can to keep it that way."

Several buyers, for example, have already sent letters to key suppliers, noting that they will not accept any increases without detailed cost justification. And even then, many say they intend to shop around before accepting any boost. And they are placing continuing emphasis on blanket orders, long-term commitments, competitive bidding, and volume purchases.

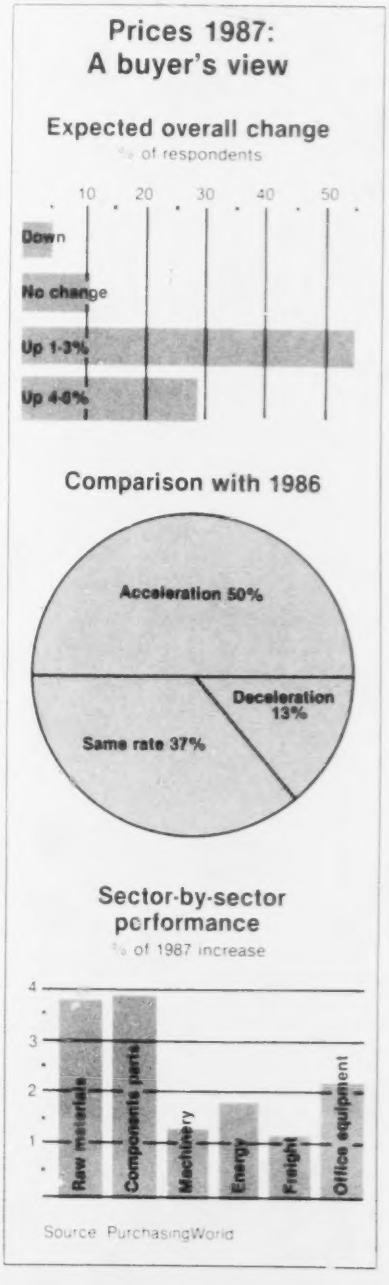
Imports are not being overlooked either. There's upward pressure in many areas, but not across the board—the dollar has held its own against the currencies of such major U.S. suppliers as South Korea, Taiwan, Canada, and Latin America.

Closer cooperation with major vendors is also high on most buyers' agendas—not only because it can help cut procurement bills over the longer pull, but also because it is a necessary prerequisite for just-in-time inventory strategies.

The purchasing vice president of a major capital equipment firm sums it all up, "We can no longer afford the luxury of paying a cent more than we have to. Our margins are thin—if we don't cut costs, our competitors will—and that could spell disaster in today's markets."

PW

Prices 1987: A buyer's view

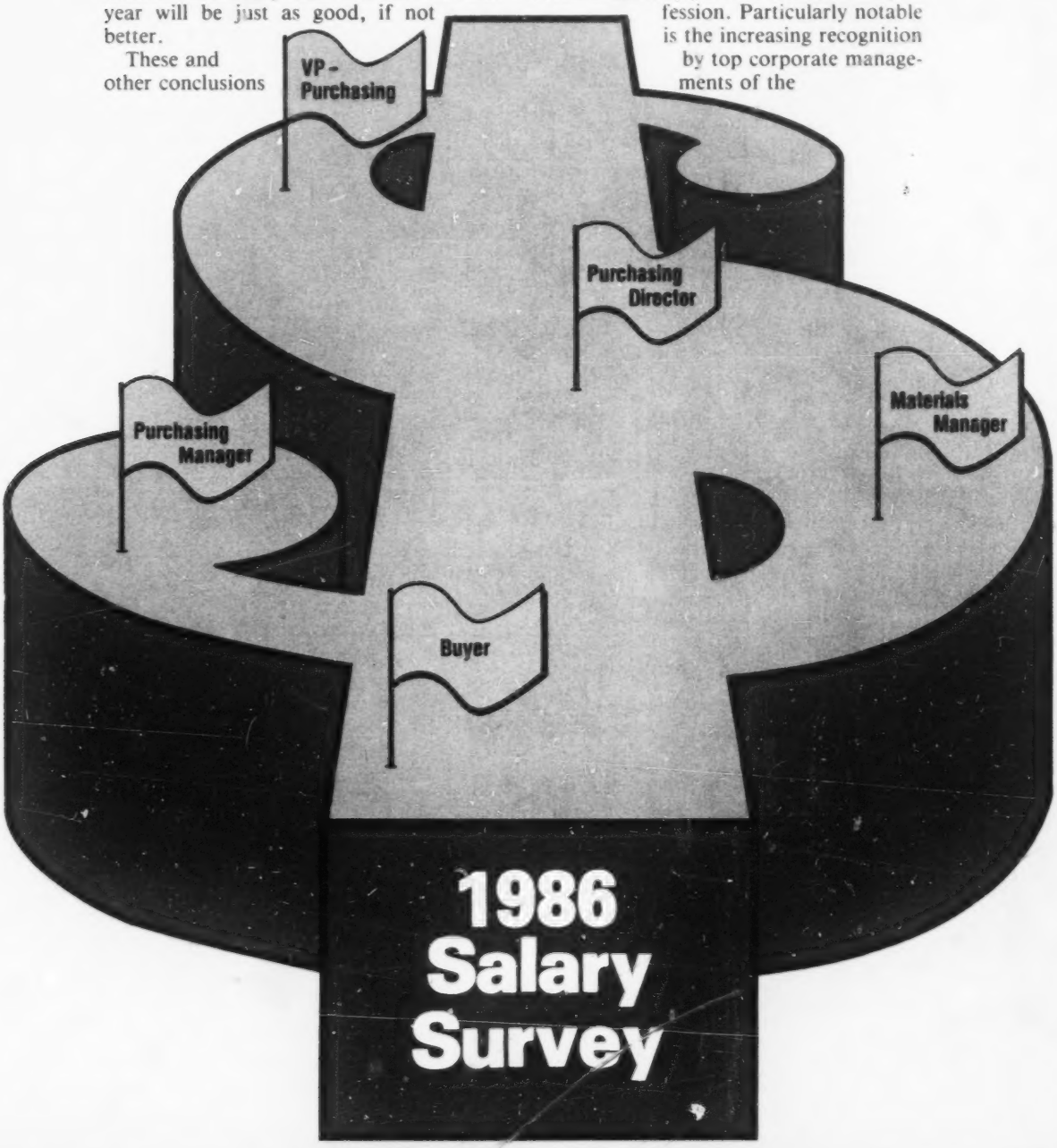


Pull your pay stub and see how you're faring

Robert R. Blumel,
managing editor

Overall, it was a good year for purchasing people. Paychecks got a little fatter and job satisfaction increased measurably. And it looks as if next year will be just as good, if not better.

These and other conclusions drawn from this year's survey of purchasing salaries—the most comprehensive *Purchasing World* has conducted to date—reveal some very positive trends in the profession. Particularly notable is the increasing recognition by top corporate managements of the



importance of the purchasing function in their organizations. This is reflected in higher wage levels, more bonus and incentive plans, and the smaller number of purchasing executives who feel they are not compensated fairly.

Younger, educated, women, and minorities

Another significant development is the increasing number of young, well-educated people who are entering the profession with better starting salaries and greater opportunity for advancement. The under-28 group with bachelor's or master's degrees grew by 4.6% over 1985 (from 11% to 15% of the total surveyed work force). Starting salaries for these bright entrants into the field jumped from $18,900 to $21,500 on average from 1985 to 1986.

The fact that purchasing is attracting younger people is also attested to by the drop in the average age and years of experience of all purchasing professionals. In 1986,

Composite salary ranges

VP PURCHASING
High average $193,000
Mode range $72,500-$101,600
Low average $40,800
Median $88,600

VP MATERIALS
High average $201,900
Mode range $91,500-$119,700
Low average $61,000
Median $103,800

PURCHASING DIRECTOR
High average $131,000
Mode range $64,700-$77,600
Low average $48,900
Median $72,500

MATERIALS DIRECTOR
High average $131,700
Mode range $66,900-$79,900
Low average $48,500
Median $73,700

PURCHASING MANAGER
High average $107,200
Mode range $43,200-$63,000
Low average $31,900
Median $54,000

MATERIALS MANAGER
High average $114,200
Mode range $51,600-$73,000
Low average $37,700
Median $61,300

PURCHASING AGENT
High average $91,800
Mode range $39,300-$59,100
Low average $36,600
Median $44,200

SENIOR BUYER
High average $75,000
Mode range $35,700-$45,400
Low average $28,000
Median $40,700

BUYER
High average $63,000
Mode range $28,100-$39,200
Low average $23,200
Median $34,000

JUNIOR BUYER
High average $39,600
Mode range $21,900-$31,000
Low average $21,500
Median $25,700

EXPEDITER
High average $48,000
Mode range $20,700-$30,100
Low average $16,700
Median $25,200

TRAINEE
High average $31,400
Mode range $19,700-$27,000
Low average $16,600
Median $22,800

High = Average of the highest 10% of salaries surveyed
Mode range = Range in which the largest number of reported salaries fell
Low = Average of the lowest 10% of salaries surveyed
Median = Average of the middle 80% of salaries surveyed

PURCHASING SALARIES BY INDUSTRY

	Food, tobacco, & related products	Transportation, shipping & related services	Energy	Textile mill, apparel, leather	Rubber, plastics, products	Electric, electronics equipment	Medical, pharmaceuticals, & related products
VP PURCHASING							
high	114,800	130,500	109,800	89,400	102,900	133,800	126,700
median	93,900	96,700	94,000	82,000	91,500	102,200	93,400
low	63,500	80,200	79,100	63,600	64,200	84,200	72,500
VP MATERIALS							
high	147,000	192,000	148,000	90,000	105,700	132,400	150,000
median	109,900	105,900	101,000	78,000	88,600	107,600	109,900
low	100,000	99,300	72,300	59,700	65,000	72,500	100,000
PURCHASING DIRECTOR							
high	74,300	75,000	94,000	81,200	74,000	78,000	80,300
median	59,000	61,000	82,900	61,500	63,000	65,500	73,000
low	47,900	44,300	62,000	48,900	56,600	55,000	54,000
MATERIALS DIRECTOR							
high	93,000	88,000	96,600	78,300	80,000	72,000	83,000
median	74,500	62,500	88,400	60,000	64,400	60,900	76,600
low	54,600	59,000	63,700	53,700	52,000	48,000	51,300
PURCHASING MANAGER							
high	62,000	78,000	80,800	60,000	57,900	52,500	78,000
median	47,500	53,400	55,000	52,000	48,700	47,500	49,500
low	39,600	46,900	42,300	49,900	41,300	35,900	30,600
MATERIALS MANAGER							
high	72,500	80,000	79,600	69,000	77,400	68,600	70,900
median	52,500	57,300	58,000	59,500	58,400	57,600	55,000
low	47,300	49,900	45,500	52,800	51,600	45,900	42,000
PURCHASING AGENT							
high	51,000	44,000	42,500	48,000	39,800	45,000	59,000
median	33,500	32,900	36,000	34,500	36,000	35,500	37,500
low	34,800	31,000	30,000	29,000	29,500	30,000	24,800
SR BUYER							
high	49,000	45,000	48,000	37,500	40,000	42,300	43,000
median	34,000	34,000	33,500	33,900	36,000	35,900	36,000
low	30,000	27,500	29,000	32,000	27,800	30,300	22,500
BUYER							
high	42,000	36,000	35,000	33,000	34,600	33,000	40,000
median	27,500	26,300	22,900	20,200	22,400	26,300	31,500
low	21,600	21,300	20,700	18,100	19,600	18,400	21,800
JR BUYER							
high	27,100	25,600	26,000	25,000	24,900	26,700	28,100
median	21,300	20,600	19,900	20,000	21,500	20,600	24,000
low	19,200	18,900	16,800	16,400	17,900	19,100	19,000
EXPEDITER							
high	28,900	27,600	29,600	24,900	29,000	30,500	30,900
median	19,900	18,700	19,000	17,800	20,500	20,400	21,500
low	16,900	15,600	17,200	14,300	17,000	16,400	18,000
TRAINEE							
high	27,500	26,800	25,000	25,200	27,300	27,100	27,500
median	18,100	19,000	19,600	15,000	18,700	20,400	22,000
low	15,700	14,200	15,300	13,900	14,800	15,300	18,200

the average age dropped from 41 to 38 years and length of experience dropped from eleven to nine years.

Many of these younger people are females on their way up. The number of women in purchasing, according to the survey findings, grew from 38% in 1985 to 42% in 1986. While most of the women in the field are clustered in the lower level jobs, a significant gain of 5% (from 8% to 13%) was noted in the number holding purchasing manager or higher positions. And pay scales for women increased by 6.4%, slightly more than the overall average for all purchasing employees. Also significant is that the findings show a much greater parity between salaries for men and women, particularly in medium and large firms.

Another positive trend is the growth of minorities in the profession. Compared to 1985's survey, minorities gained 4% of the jobs in purchasing during 1986, climbing to 19% of the total. And there was no apparent salary differential between minorities and other buyers. Minorities also made some inroads into higher management positions by taking another 3% of the jobs and raising the total to 8%.

Key salary determinants

While most of the respondents

Metal service centers	Stone, clay, glass products	Instruments & related products	Fabricated metal products	Machinery	Transportation equipment	Chemicals, allied products	Printing & publishing	Paper related products	Communications	Miscellaneous
104,500	126,000	111,300	102,900	100,800	103,000	140,000	115,000	123,000	135,000	89,900
86,700	84,000	93,100	81,500	82,300	95,000	99,000	97,000	104,500	103,600	84,400
70,200	69,100	73,600	62,400	64,200	67,000	79,900	80,500	83,700	88,500	67,000
114,000	188,000	127,500	104,300	102,500	127,500	150,000	118,000	123,400	118,000	132,400
105,900	100,000	109,000	91,400	90,300	109,900	105,900	97,500	101,000	78,000	88,600
99,300	75,400	88,700	72,000	71,500	100,000	99,300	84,600	72,300	59,700	65,000
82,000	74,000	78,200	78,000	80,200	79,500	77,000	76,000	74,100	74,000	76,700
71,000	66,500	72,800	72,000	78,500	54,000	60,000	72,500	68,000	65,000	63,600
56,200	49,000	58,900	53,600	49,000	43,500	45,800	42,000	45,000	48,700	47,000
89,600	83,400	84,500	81,300	82,500	90,000	85,000	86,000	80,500	85,000	82,000
74,400	73,000	78,400	75,000	63,700	72,500	72,000	78,400	70,000	64,900	62,900
58,900	61,600	62,700	60,000	59,000	64,800	55,000	60,000	57,700	50,000	49,000
58,000	60,800	61,000	58,970	57,500	72,000	68,000	63,000	66,000	67,000	62,500
45,300	45,000	42,000	46,300	44,500	43,700	42,600	43,900	44,000	48,700	51,500
38,700	32,300	34,900	31,900	36,000	33,600	34,800	30,900	36,300	39,000	34,300
76,000	75,500	75,000	77,400	78,500	77,500	72,000	70,500	73,000	71,300	72,500
53,700	54,000	53,600	58,000	51,500	52,000	54,600	55,000	51,000	55,000	50,500
43,000	44,700	42,800	41,500	45,000	40,000	44,000	39,500	41,500	44,000	38,500
47,500	43,500	44,000	40,700	45,500	55,000	54,700	60,500	58,000	59,800	55,000
32,600	34,900	30,500	32,000	32,500	33,500	32,500	39,000	34,500	36,000	37,500
21,000	20,000	21,000	28,500	23,500	34,800	29,500	31,000	30,000	29,000	28,500
39,000	37,500	40,500	42,000	38,400	47,000	46,800	50,000	46,000	47,500	48,000
26,000	26,500	24,800	26,500	25,900	33,700	32,500	35,900	32,500	33,900	34,000
19,700	18,000	18,900	17,900	20,400	24,000	21,000	26,600	19,000	22,000	24,800
36,000	37,500	32,000	34,000	32,500	38,000	46,000	44,000	41,000	45,600	39,600
25,300	26,300	22,200	24,400	26,000	29,500	27,300	24,900	21,200	24,400	22,100
19,000	20,000	18,500	19,000	17,700	16,700	19,300	18,700	21,100	19,600	17,400
24,700	27,500	24,000	23,500	25,800	28,500	27,500	26,900	27,000	25,900	26,700
20,500	20,000	21,000	19,900	20,900	22,300	21,500	20,900	21,000	21,500	19,400
16,900	16,800	15,700	16,000	16,500	18,000	17,500	17,800	18,300	16,900	15,200
27,000	28,000	25,900	28,000	27,500	26,900	30,500	28,700	25,500	29,000	26,000
19,000	17,500	18,800	19,500	21,400	21,700	21,700	19,600	20,800	20,500	19,000
15,900	15,700	14,000	16,000	16,300	16,900	15,600	17,200	14,300	17,000	15,900
23,700	24,300	25,000	25,500	24,000	26,200	27,800	25,500	26,400	27,000	24,000
19,500	19,200	18,500	20,700	19,000	19,500	20,000	18,900	17,600	18,700	17,100
15,000	14,500	15,700	15,000	16,000	15,000	16,200	14,300	15,900	14,800	14,900

Salaries by education

(Average of all titles in all industries)

Average years of experience for all titles in all industries = 9

VP PURCHASING
Average years of experience = 17
High School $51,000
Bachelors $74,900
MA/MS/MBA $91,100
Technical degree $76,100

VP MATERIALS
Average years experience = 19
High School $53,700
Bachelors $82,200
MA/MS/MBA $91,300
Technical degree $87,000

PURCHASING DIRECTOR
Average years experience = 13
High School $36,200
Bachelors $60,600
MA/MS/MBA $69,200
Technical degree $62,500

MATERIALS DIRECTOR
Average years experience = 16
High School $33,900
Bachelors $59,100
MA/MS/MBA $64,600
Technical degree $60,400

PURCHASING MANAGER
Average years experience = 9
High School $27,000
Bachelors $42,700
MA/MS/MBA $48,700
Technical degree $43,000

MATERIALS MANAGER
Average years experience = 12
High School $29,600
Bachelors $44,600
MA/MS/MBA $51,700
Technical degree $48,300

PURCHASING AGENT
Average years experience = 7
High School $20,800
Bachelors $32,700
MA/MS/MBA $41,700
Technical degree $36,200

SENIOR BUYER
Average years experience = 9
High School $20,700
Bachelors $30,700
MA/MS/MBA $40,300
Technical degree $33,700

BUYER
Average years experience = 5
High School $18,700
Bachelors $28,900
MA/MS/MBA $34,600
Technical degree $30,200

JUNIOR BUYER
Average years experience = 2
High School $15,400
Bachelors $21,300
MA/MS/MBA $26,700
Technical degree $20,700

EXPEDITER
Average years experience = 4
High School $14,100
Bachelors $22,700
MA/MS/MBA ****
Technical degree $25,200

TRAINEE
Average years experience = < 1
High School $14,600
Bachelors $19,700
MA/MS/MBA $24,500
Technical degree $22,800

**** Insufficent data

(88%) said that performance was the most important factor in determining salaries and raises, there was a very high correlation between seniority and pay scales despite the fact that only 10% of the respondents ranked seniority as a significant factor in their determination of salary levels.

Education has the most impact on starting salaries, but remains important as a factor in salary levels throughout a purchasing professional's career. The study shows that on average a person with a bachelor's degree will earn about 30% more than a person with a high school education holding the same job function. And a master's degree will net about 44% more in the same job title. And MBAs are in big demand. Nearly 60% of the respondents ranked an MBA as having the greatest impact on salary and raises. A master's in anything other than business ranked just about the same as an MBA. Technical degrees for buyers slipped in popularity (to 19% from 22%) while bachelor's degrees increased (to 58% from 47%). And the Certified Purchasing Manager (C.P.M.) certification picked up

AVERAGE 1986 PAY INCREASES AND PROJECTED PAY INCREASES FOR 1987 BY INDUSTRY

	Food, tobacco, & related products %	Transportation shipping & related services %	Energy %	Electric, electronics equipment %	Rubber, plastics, products %	Textile mill, apparel, leather %	Medical, pharmaceuticals, & related products %
VP PURCHASING							
1986	5.3	5.9	6.0	5.2	6.1	5.1	6.1
1987	5.7	6.0	4.9	5.3	6.7	4.5	6.0
VP MATERIALS							
1986	5.9	6.1	5.3	6.7	7.0	4.5	6.6
1987	5.5	5.7	5.4	6.1	6.9	4.7	5.0
PURCHASING DIRECTOR							
1986	6.0	5.8	5.0	6.2	6.4	5.0	5.8
1987	5.7	5.5	5.9	6.0	6.2	4.5	5.5
MATERIALS DIRECTOR							
1986	5.9	6.2	6.3	5.7	5.9	5.2	5.8
1987	5.5	6.1	5.9	5.5	5.8	4.9	5.0
PURCHASING MANAGER							
1986	6.7	6.3	6.1	5.9	5.9	4.9	5.5
1987	5.4	6.2	5.5	5.7	5.9	4.5	5.0
MATERIALS MANAGER							
1986	6.3	5.9	6.0	6.0	6.1	3.7	5.6
1987	5.5	6.0	6.0	5.4	6.1	3.5	5.0
PURCHASING AGENT							
1986	6.1	6.0	6.1	6.2	5.9	3.6	5.4
1987	5.5	6.0	5.9	6.0	6.0	3.[illegible]	5.1
SENIOR BUYER							
1986	5.9	5.8	5.9	6.1	6.0	4.0	5.7
1987	5.2	6.0	6.0	6.1	5.8	3.7	5.0
BUYER							
1986	5.7	6.1	6.0	6.6	5.8	3.2	5.5
1987	5.8	6.0	5.9	6.2	6.0	3.3	5.6
JR BUYER							
1986	5.6	5.8	5.7	5.6	5.6	3.0	5.7
1987	5.7	6.0	6.0	6.0	5.9	3.5	5.1
EXPEDITER							
1986	5.8	6.3	5.9	5.6	5.5	3.2	5.0
1987	6.0	6.1	6.0	6.3	5.5	3.0	5.0
TRAINEE							
1986	5.9	5.8	6.0	6.3	5.4	2.9	5.0
1987	5.0	5.4	6.0	6.0	5.0	2.5	4.0
OVERALL AVERAGES (Eliminating high and low 10% extremes)		1986	6.3%	**OVERALL AVERAGES** (All units)		1986	5.7%
		1987	6.0%			1987	5.5%

some (to 15% from 13%) as an influence on salaries and raises. For whatever it means, only 5% ranked a doctorate degree as an important factor.

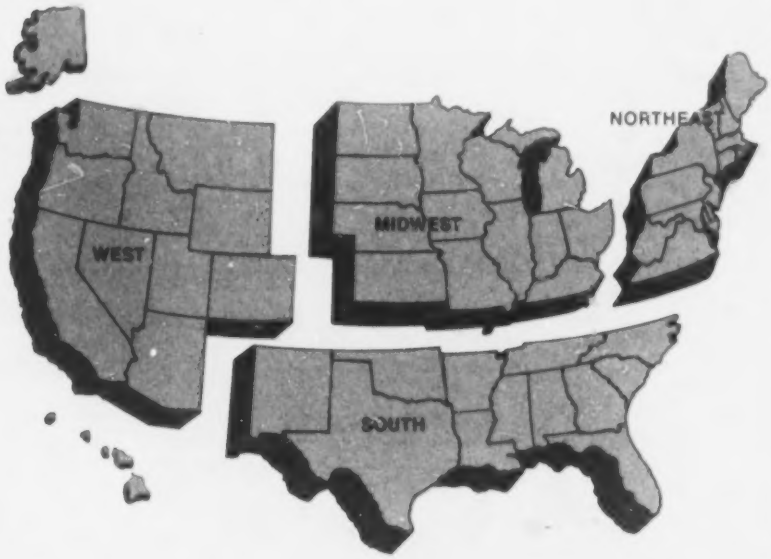
Raises and perks

In general, raises in 1987 are going to be slightly under those granted in 1986—from 5.7% overall in 1986 to 5.5% overall in 1987. But this is not true for each individual industry (see chart). And this overall figure is somewhat skewed out by some industries that were included in both the 1986 final calculations and the 1987 projections which contained figures from some depressed industries. You will note on the detailed chart of industry-by-industry projections that the textile industry, for example, is considerably lower than all others, and the communications and pharmaceutical industries are well above the average. When taken without these extremes, the overall average raise climbs slightly to 6.3% in 1986 and 6.0% in 1987. If you are making out your budget for 1986, use the 6% figure as an overall average for raises unless you are in one of the industries with extremes. A 6% increase in 1987 means that purchasing salaries will have grown more than 12% on average in two years and nearly 20% in the past three years—a clear indication that purchasing's role in corporate life is becoming more recognized and valued.

Incentives are increasing for purchasing people and they are being extended to more purchasing employees. Apparently, PMs are having some impact on their managements as more firms are adding bonuses and incentive rewards based on purchasing savings/cost reduc-

Metal service centers %	Stone, clay, glass products %	Instruments & related products %	Fabricated metal products %	Machinery %	Transportation equipment %	Chemicals, allied products %	Printing & publishing %	Paper related products %	Communications, electric service %	Miscellaneous %
6.0	6.0	5.5	5.9	5.5	5.9	6.5	6.2	5.8	5.7	6.6
6.1	5.9	5.7	6.3	5.9	5.6	6.0	6.2	5.8	5.5	6.0
5.7	5.8	6.2	5.9	4.8	5.9	5.9	6.3	6.1	5.8	5.9
5.6	5.7	6.0	6.1	5.0	5.8	6.0	6.0	6.0	6.0	5.8
5.7	5.3	6.0	5.7	5.2	6.0	5.3	5.9	5.8	6.0	5.7
5.5	5.7	6.0	5.6	5.1	5.8	5.5	5.9	5.5	6.0	6.0
6.0	5.8	5.5	5.0	4.8	6.0	5.5	5.9	5.7	6.1	5.9
5.9	6.0	5.0	5.2	4.7	5.0	5.9	6.0	5.0	5.2	6.1
5.7	5.4	5.9	5.1	5.3	5.5	5.7	5.4	5.9	5.1	6.3
6.0	5.9	5.0	5.1	5.1	5.0	6.0	5.9	5.0	5.4	5.9
5.8	5.4	6.0	5.0	4.9	5.6	5.8	5.4	6.0	5.0	5.9
5.3	5.5	5.1	5.0	5.1	5.0	5.3	5.5	5.1	5.0	6.1
5.9	5.5	5.7	5.9	4.6	5.4	5.9	5.5	5.7	5.9	5.6
6.0	5.9	4.5	5.3	4.5	5.6	6.0	5.9	5.5	5.7	5.5
5.0	4.9	5.3	6.0	4.0	5.6	6.0	5.9	5.8	6.0	5.7
4.5	4.7	5.9	6.0	4.1	5.5	5.0	6.1	5.9	5.6	5.8
5.8	5.0	5.4	5.2	4.7	4.5	5.3	6.0	5.7	5.9	5.7
6.0	4.9	5.3	5.0	4.5	5.0	5.6	5.9	5.8	5.9	5.5
5.8	5.4	5.2	5.9	4.0	5.2	5.6	5.7	5.8	6.0	5.3
6.0	5.0	5.8	5.9	4.5	5.1	6.0	5.0	5.8	5.9	4.5
5.3	4.9	5.2	5.8	4.2	5.1	4.7	5.0	5.4	5.7	5.2
5.6	5.0	5.5	4.5	4.0	5.3	5.0	4.5	5.0	6.0	5.0
5.2	5.3	4.3	6.4	4.9	4.8	5.4	5.2	5.9	6.2	5.5
5.7	5.2	4.8	6.0	4.5	5.0	5.6	5.2	5.8	6.1	5.6

tions/performance. In both the 1985 and 1986 surveys, about half of the managers surveyed noted that this was their most sought-after incentive. In 1985, only 4% of the PMs reported any type of incentive plan, but this year 8% listed such programs. In addition, other managers reported increases in the number of other incentive programs such as stock options (from 14% to 16% of the reporting companies) and straight bonuses not tied to purchasing savings (13% to 15%). Of those companies offering incentive plans, almost half reported that the plans extend to employees below management rank. This is a significant development over last year when only one-third of survey respondents indicated that lower level employees participated in these plans. While there has been some substantial increase in the incentives given to purchasing people, there has been a slight erosion of the amount of total compensation represented by nonsalary compensation such as fringe benefits. In 1985,nonsalary items constituted an average of 24% of total compensation. In 1986, it accounted for only 22%. That doesn't necessarily mean that these benefits were reduced (although, in some cases, they have been) as much as it means that they are a lesser percentage of the total, probably because of higher real wages.



PURCHASING SALARIES BY REGION

Average all industries

	Northeast	Midwest	South	West	Northeast	Midwest	South	West
VP PURCHASING					**PURCHASING AGENT**			
High average	133,000	116,000	103,000	140,000	89,000	82,000	70,000	93,000
Median	89,000	87,000	81,000	91,000	42,000	43,000	32,000	43,000
Low average	52,800	50,000	46,000	52,000	29,000	27,000	21,000	30,000
VP MATERIALS					**SENIOR BUYER**			
High average	205,900	172,000	105,000	193,000	72,000	66,000	53,000	75,000
Median	129,700	115,000	90,000	118,000	41,000	39,000	30,000	44,000
Low average	61,000	60,000	52,000	68,000	25,000	23,000	21,000	25,000
PURCHASING DIRECTOR					**BUYER**			
High average	93,000	82,000	84,000	89,000	64,000	60,000	52,000	66,000
Median	68,000	67,600	57,000	66,000	33,000	30,000	27,000	36,000
Low average	49,000	43,000	38,000	46,000	23,000	22,000	18,000	26,000
MATERIALS DIRECTOR					**JUNIOR BUYER**			
High average	134,000	116,000	92,000	105,000	39,000	36,000	30,000	42,000
Median	69,000	68,000	57,000	72,000	22,000	21,000	16,000	24,000
Low average	48,000	45,000	40,000	51,000	18,000	18,000	14,000	20,000
PURCHASING MANAGER					**EXPEDITER**			
High average	100,000	95,000	80,000	106,000	48,000	39,000	32,000	52,000
Median	52,000	48,000	40,000	54,000	24,000	23,000	19,000	26,000
Low average	36,000	36,000	32,000	37,000	18,000	17,000	16,000	19,000
MATERIALS MANAGER					**TRAINEE**			
High average	104,000	102,000	87,000	105,000	32,000	29,000	26,000	36,000
Median	58,000	56,000	53,000	62,000	22,000	21,000	18,000	24,000
Low average	48,000	46,000	40,000	51,000	18,000	16,000	14,000	20,000

High = Average of the highest 10% of salaries surveyed
Median = Range in which the largest number of reported salaries fell
Low = Average of the lowest 10% of salaries surveyed

Comparisons

The improvement in purchasing salaries and incentives is also attested to by PMs themselves. Most (79%) said that purchasing salaries in their company were comparable to other departments—that's up 20% over 1985's survey results. Only 12% said salaries were lower than other departments (down from 22% in 1985), only 9% said they were higher (down from 12% in 1985). When asked to compare salaries in their departments with comparable occupations, 88% said they were about the same (up from 63% in 1985), 11% said they were lower (down from 17% in 1985), and only 1% said they were higher (down from 12%). Another healthy sign: The number of managers who say they are fairly compensated for what they do rose to 89%—up three points over 1985—and only 8% said they were not fairly compensated.

Once again, *PurchasingWorld*'s annual salary survey has found the purchasing profession in a very positive frame of mind and gaining ground in compensation and recognition. There is also a changing face to the profession as more women, minorities, and younger, educated people enter the field.

The survey technique

This year's survey covered 1,069

PURCHASING SALARIES BY COMPANY SIZE

(annual sales dollars)

Average all industries

	To $50 million	$50-500 million	$500 million-$1 billion	$1 + billion
VP PURCHASING				
High average	89,000	94,000	102,000	150,000
Median	69,000	83,000	88,000	100,000
Low average	55,000	52,000	49,000	63,000
VP MATERIALS				
High average	126,000	161,000	175,000	201,000
Median	68,000	84,000	91,000	96,000
Low average	43,000	52,000	54,000	60,000
PURCHASING DIRECTOR				
High average	73,000	84,000	87,000	103,000
Median	60,000	62,000	65,000	72,000
Low average	41,000	43,000	43,000	52,000
MATERIALS DIRECTOR				
High average	88,000	90,000	91,000	102,000
Median	52,000	56,000	60,000	70,000
Low average	43,000	48,000	48,000	52,000
PURCHASING MANAGER				
High average	68,000	72,000	81,000	102,000
Median	39,000	42,000	47,000	52,000
Low average	33,000	36,000	38,000	44,000
MATERIALS MANAGER				
High average	74,000	76,000	87,000	101,000
Median	50,000	52,000	63,000	72,000
Low average	40,000	41,000	40,000	52,000

	To $50 million	$50-500 million	$500 million-$1 billion	$1 + billion
PURCHASING AGENT				
High average	52,000	59,000	64,000	66,000
Median	34,000	39,000	42,000	45,000
Low average	29,000	27,000	21,000	30,000
SENIOR BUYER				
High average	52,000	54,000	54,000	62,000
Median	33,000	36,000	34,000	38,000
Low average	21,000	23,000	25,000	25,000
BUYER				
High average	44,000	52,000	52,000	56,000
Median	29,000	32,000	32,000	36,000
Low average	16,000	18,000	21,000	22,000
JUNIOR BUYER				
High average	26,000	27,000	30,000	36,000
Median	22,000	22,000	22,000	24,000
Low average	14,000	15,000	18,000	18,000
EXPEDITER				
High average	27,000	30,000	32,000	42,000
Median	20,000	23,000	24,000	25,000
Low average	15,000	17,000	20,000	23,000
TRAINEE				
High average	24,000	27,000	29,000	32,000
Median	18,000	21,000	22,000	24,000
Low average	14,000	16,000	16,000	20,000

High = Average of the highest 10% of salaries surveyed

Median = Range in which the largest number of reported salaries fell

Low = Average of the lowest 10% of salaries surveyed

firms throughout the U.S., covering 6,414 positions in 12 job titles. The survey form was mailed to top purchasing and materials management executives at all size firms across major industry groupings. This year, a listing of job descriptions was included in order to make comparisons between job titles more consistent and therefore produce more accurate results.

All data was arrayed against a variety of variables to produce results showing the average of the highest 10%, the average of the lowest 10%, and the median of the remaining 80% of salaries by job title, geographic location, and industry grouping.

The Job Descriptions Survey was mailed to top purchasing executives across all industry groupings by size of company and geographic location. Each task description was then sorted to determine the percentage of respondents who assigned the particular task to a specific title. If a task appeared more than 50% of the time, it was assigned to the specific title. Duplication of the task assignment to more than one title was unavoidable because of the general nature of the description. For example, "issues purchase orders and changes" accurately appears under several titles. In practice, the description would have to be more specific as to purchasing authority, type of product or service purchased, and other specifiers. ***PW***

Job Descriptions

For a detailed copy of the results of the Job Description Survey, send $5.00 for postage and handling to *Purchasing World* Job Survey, 6521 Davis Pkwy., Solon, OH 44139.

The "average" PM

Taking all the data collected from the salary survey and simply running averages produces a composite picture of the average purchasing manager which looks something like this:

The average PM is 63% more likely to be a white male than a women or a minority. He is 39 years old, has a bachelor's degree in business, has 11 years of experience in purchasing, and earns $51,000 a year. He reports to the vp for operations and supervises six people in a department that is responsible for spending $94 million a year for a company doing $205 million in annual gross sales. In 1986, he received a 6.8% raise and will get a 6-7% raise in 1987. He receives approximately 19% of total compensation in nonsalary compensation. He is basically satisfied with his salary and benefits.

Tax reform may spur leasing

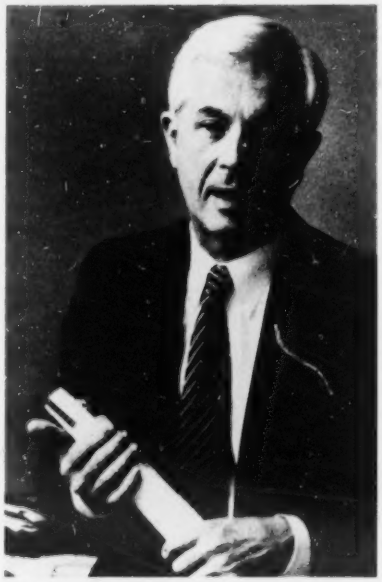
Robert S. Reichard, executive editor

Disregard talk that equipment leasing will be hurt by the new tax law.

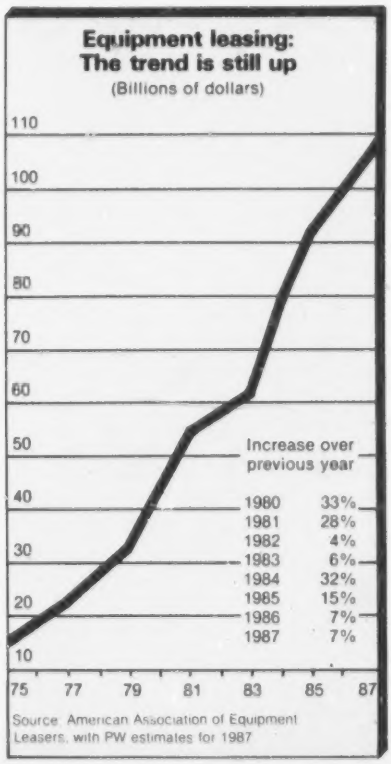
Quite the contrary. Lessors, lessees, and officials of the American Association of Equipment Lessors (AAEL) all see a continued growth in leasing, which this year totals $100 billon—more than double the volume at the beginning of the decade.

The AAEL, in an exclusive interview with *PW* gives several reasons for its upbeat appraisal:

- While repeal of the investment tax credit (ITC) and the enactment of an alternative minimum tax (AMT) will increase the cost of leasing, it will raise outright purchase costs by an equal amount.
- Only a small percentage (about 15%) of total leased equipment last year was transacted exclusively for tax purposes. Most companies, says Michael Fleming, AAEL president, lease for convenience and flexibility. This approach provides much longer terms than conventional financing, with payments tailored to fit the lessee's particular needs.
- Leasing also offers off-balance-sheet reporting which plays an important role in the decision-making for some. It allows companies to show an asset as a footnote rather than as an additional debt.
- A growing number of firms view equipment lessors as asset managers providing maintenance and service rather than acting as simple financiers.
- Finally, there is no better protection against obsolescence than leasing.



Michael J. Fleming, president, American Association of Equipment Lessors says capital-intensive companies that have to pay more taxes under the new tax bill may find leasing advantageous.



AMT impact

Coming back to the new tax bill—the area of immediate concern for companies contemplating new capital equipment: An AAEL survey of lessors finds that many feel that capital-intensive companies which previously were able to take tax deductions by purchasing equipment now will find that with too many depreciation preferences, they will be in the minimum tax position and will have to pay more taxes.

Peter Nevitt of BankAmeriLease Companies, San Francisco, CA, believes defense companies will become new customers for lessors because they will be using new accounting procedures which will force them into an AMT position and make leasing attractive. Nevitt says some equipment types will do better than others—those with asset lives of five to seven years will be more competitively priced.

Ian J. Berg of Copelco, Pennsauken, NJ, believes leasing will increase in the middle market ($50,000 -500,000), also due to the AMT. "Companies want to eliminate having too many preference items to avoid falling into the AMT," he says, echoing the beliefs of many lessors across the U.S.

Berg also believes small ticket transactions (under $50,000) will remain as strong as ever. He expects the healthcare market to improve considerably. In addition, Berg said that the elimination of tax exempt bonds will diminish competition in the healthcare market, and likely result in increased activity there.

The lessee will benefit even more if he finds a lessor which is not falling into the AMT position, notes Norman Chapman, Security Pacific Leasing, San Francisco, CA.

No change in plans

Not surprising, the AAEL finds that most lessees aren't changing their plans to acquire equipment. Those companies acquiring "small ticket" equipment usually didn't lease for tax reasons in the past, so their plans for the future shouldn't be impacted. BankAmeriLease's Nevitt believes companies that leased for tax reasons still will find some tax benefits. "They just won't be as great," he says.

Big lessees seem to agree. "We'll go through the steps we always have gone through in the past," says John Edwardson, Northwest Airlines executive vice president. "The key for us in the new bill is the new minimum tax. As a result of that, it appears, initially, that leasing will be more necessary for us rather than less."

Another lessee, Union Labor Life Insurance, leases about 80% of its data processing equipment strictly to avoid obsolescence. The tax bill doesn't change that.

Dick Reide, vice president of Union's information management

division, notes, "There's a point in the life of equipment where it's smart to buy; the idea is to maximize the life of the machines in your particular set-up. What you have to do is tie your long-range plans in with your procurement plans so you'll have the capacity to upgrade."

National Car Rental leases its computer and disk equipment, but purchases printers and other larger items. The decision is based on "pure economics," says David Johnson, corporate vice president.

"The process is relatively simple. We look at the useful life of the equipment at our location. We do a purchase/lease analysis, comparing the cost to buy, plus interest, minus the residual value, and we compare that to the lease rate for the same period," Johnson explains.

One thing lessors like about the new tax bill is that it will bring leasing back to a "truer" form that is based on sound economic reasons.

For more information from the AAEL **Circle 162** ***PW***

Leasing before and after tax reform: two examples

James M. Johnson, Ph.D.,
Mark Financial Services,
Arlington, MA

The most significant aspects of the Tax Reform Act of 1986 on equipment financing are the rescinding of the investment tax credit (for the third time in the last 20 years), the new cost recovery classes for depreciation purposes, and the alternative minimum tax (AMT).

■ **The ground rules.** To illustrate the effects of tax reform on leasing, two transactions will be considered from the standpoint of both lessor and lessee. For the regular tax system, the new 34% tax rate (effective July, 1987) and 200% declining balance to straight-line over the cost recovery class life are used with the half-year convention. In addition, the AMT calculations include the additional taxes due on the spread between book and tax income as required by the new Act.

■ **Example I.** Consider equipment with a cost of $100,000 to be leased over a ten-year term. The equipment has a five-year life under the Deficit Reduction Act 1984 (DEFRA), a five-year depreciable life under the 1986 Act, and a five-year life if the equipment owner is taxed under AMT (e.g. semiconductor manufacturing equipment and electric utility nuclear fuel assemblies). The lessor prices the lease to earn the same economic rate of return in each case, can borrow at 11%, and finances in each case with 70% debt and 30% equity financing.

To simplify the analysis, annual cash flows and operating lease accounting are assumed throughout. Before the 1986 Act, the annual rent charged would be $23,247 if the ITC accrued to the lessor—call this the *base rent*. If the ITC were unavailable or passed to the lessee, the rent (again before the Tax Reform Act) would be $26,800, or 15% higher than the base rent. Under tax reform, the lessor would require rent of $25,811 (11% higher than the base rent) if taxed as a regular taxpayer and $25,648 (10% higher than the base) if taxed under the AMT. These results indicate that the major influence on rents is the ITC. And under the Tax Reform Act, it does not make much difference which tax system the lessor is under (regular or AMT).

A lease/buy analysis for the five-year lease under tax reform, assuming the equipment user can borrow funds at 11%, yields different results depending upon whether the equipment user is a regular or AMT taxpayer. If the user is a regular taxpayer, the net present value advantage of leasing over buying is $23. If the user is an AMT taxpayer, the advantage of leasing increases to $1,087. Thus, for equipment which has a similar depreciable life under either regular or AMT tax systems, an AMT asset user will find leasing more profitable than buying (or less unprofitable).

■ **Example II.** This time around, there is a large spread between the equipment's depreciable life under the regular tax system as opposed to the AMT. All assumptions here are the same as the example above, except the equipment is now presumed to be leased over a ten-year term and to have a five-year depreciable life under the regular tax system and a nine-year life under the AMT (e.g. buses and CATV program origination equipment).

In the second example, the lessor would require an annual rent of $13,211 (the new base rent) with ITC retained under the 1984 Act. This rises to $15,402 (17% higher than the base rent) under the 1984 Act, if the ITC is unavailable or passed to the lessee. Under the 1986 Act, the rent required is $15,498 (17% higher than the base rent) with the regular tax and $16,434 (4% higher than the base rent) under the AMT. Here, in addition to the importance of lost ITC noted in the previous example, it makes a significant difference whether the lessor is a regular or AMT taxpayer under the 1986 Act.

A lease/buy comparison under the second example results in an advantage to buying the equipment in the amount of a $3,764 present value savings if the user is under the regular tax. However, the advantage flips to leasing for a present value savings of $1,897 if the user is under the AMT. Thus, for equipment with significantly longer AMT depreciable lives (than regular tax lives), equipment users will find leasing more attractive (less unattractive) if they fall in the AMT.

Equipment users which will find leasing most attractive will be those finding themselves on the AMT (or trying to avoid the AMT by not creating tax preferences) and acquiring equipment which has a significantly greater ADR midpoint than its cost recovery class.

FLUID POWER

Pressure up on fluid power

Robert R. Blumel,
managing editor

The fluid power industry is facing some tough challenges from technological advances, foreign competitors, and a shrunken marketplace. As National Fluid Power Association (NFPA) chairman Theodore Duncan points out, the industry is being confronted with a swing away from fluid power systems controls to electronic controls and abandonment of fluid power completely in favor of electrical systems with electronic controls.

Duncan, who is president of Vickers Inc., a Trinova Company, says that the once American-dominated world market has given way to intense worldwide competition from European and Far East manufacturers that got the jump on domestic manufacturers with smaller, lighter, quieter, and cooler running systems. And they have been successful at penetrating the American market.

Like a lot of industries, the fluid power industry has been hurt by the shrinking manufacturing base. Duncan notes that customers have disappeared in almost every machinery market. And those that remain are not building as much as they did, nor are they buying as much.

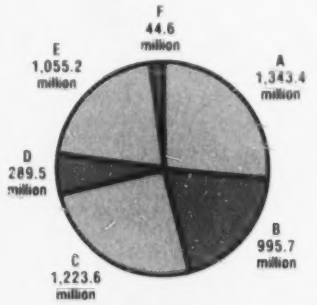
But the industry is meeting these challenges with upgraded technology and systems engineering approaches. The use of systems engineering to meet the challenge of electrical systems is one trend that surely will continue to pick up steam. The marriage of electronic controls to fluid power systems and the improvement of fluid power component technology are two important developments that the industry sees as promising.

Duncan points out that the industry has also been successful at miniaturizing pumps and valves, getting more power output, higher pressures, and lower costs. These efforts are permitting domestic producers to compete head-on with electrical systems.

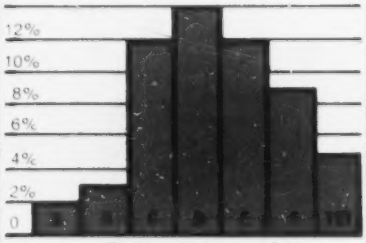
The future, in Duncan's view, is in motion control. He feels the term "fluid power" is not sufficiently descriptive of the nature of the industry any more. "If we are able to handle fluid power, electronic controls, and electrical equipment, and we tell our customer the best solution is a fluid power system, we are credible because he knows that we can give him the electrical system as well."

...continued

Fluid power product shipments
Reported in Current Industrial Report MA-35N



Total—$4,952.0 million

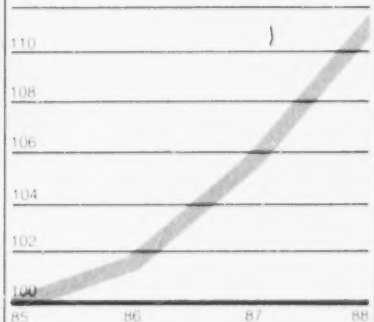


% change from 1984

A -Hydraulic and pneumatic valves
B -Fittings and assemblies for tubing and hose
C -Hydraulic and pneumatic cylinders, actuators, accumulators, cushions, non-vehicular shock absorbers
D -Hydraulic and pneumatic filters
E -Hydraulic pumps, motors and hydrostatic transmission components
F -Pneumatic (air) motors and motor packages

Source: NFPA

Forecasts for shipments of fluid power products



Source: National Fluid Power Association

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The outlook

Overall, the industry is fairly optimistic about the future. A recent national industry outlook survey conducted by NFPA shows that manufacturers expect shipments to rise by 1.5% in 1986 over 1985 and to perform even better in 1987, with a 3.9% increase, and in 1988, with 5.2%.

The cheeriest expectations are from the manufacturers of hydrostatic transmissions for mobile use who project a 6.8% increase for their sector in 1987. They are closely followed by sealing device manufacturers who see a 6.0% rise in shipments, and by the industrial power unit manufacturers who expect a 4.8% rise. The lowest projection comes from the mobile hydraulic valve makers who expect only a 2.1% advance.

The biggest headache that manufacturers see, according to the survey, is foreign competition. But, if Duncan's view is anywhere near accurate, the industry is doing more than holding its own to meet this challenge. Many companies have set up offshore operations and are taking advantage of offshore technology to stay competitive. And the domestic producers are keeping prices competitive through greater efficiencies, systems approaches, and new technology. ***PW***

New SICs for fluid power

The revision of the Standard Industrial Classification System now includes three separate codes for fluid power. The new SICs, which will be effective January 1, 1987, are as follows:

SIC 3492—Fluid power valve and hose fittings (formerly 3494)

Fluid power aircraft valves and fittings (formerly 3728)

SIC 3593—Fluid power cylinders and actuators (formerly 3599)

Fluid power aircraft cylinders and actuators (formerly 3728)

SIC 3594—Fluid power pumps and motors (formerly 3561)

Fluid power aircraft pumps and motors (formerly 3728)

Speed changers (formerly 3566)

Fluid power filters (formerly 3569)

Fluid power aircraft filters (formerly 3728)

The advantage of these changes is that only fluid power products are included in the new codes. Before this, some of the old codes included other items. For example, industrial valves were included with fluid power valves.

Producer Price Index—fluid power

Fluid power equipment rose 1.7% between August 1985 and August 1986. For the year, pumps rose by 1.1%, valves rose by 1.7%, and cylinders rose by 2.3%. This stable trend is expected to continue.

PRODUCT	AUG 1986	JUL 1986	AUG 1985
Machinery & equipment (SIC Code 35)	**102.1**	**102.0**	**101.2**
General purpose machinery & equipment (SIC Code 356)	**103.1**	**103.0**	**101.8**
Fluid power equipment (BLS Code 1143)	**269.8**	**268.8**	**265.2**
Air compressors/ stationary (BLS Code 114103)	**238.8**	**238.8**	**238.4**
Air compressors/portable (SIC Code 3563115)	**104.7**	**104.8**	**104.0**
Pneumatic hand tools (SIC Code 35462)	**127.8**	**127.9**	**121.3**
Hydraulic fluid power pumps	**102.6**	**102.6**	**101.5**
Gear type	98.0	98.0	96.7
External	102.7	102.4	100.9
Internal	87.1	87.7	87.1
Axial piston variable	104.5	104.5	103.8
Fluid power valves	**106.9**	**106.9**	**105.1**
Hydraulic valves	105.0	105.0	104.1
Manual directional control	104.6	104.6	104.6
Other directional control	100.1	100.1	100.5
Flow control (including check valves)	106.1	106.1	100.1
Servovalves			
& combination valves	108.9	108.9	107.0
Other hydraulic valves	115.5	115.5	113.3
Pneumatic valves	111.3	111.3	107.4
Pressure control	111.5	111.5	108.2
Other pneumatic	110.1	110.1	107.0
Cylinders, accumulators, cushions & shock absorbers	**103.6**	**102.5**	**101.3**
Hydraulic cylinders	102.1	102.1	101.3
Telescoping	102.1	N/A	102.1
Tie rod	N/A	104.7	102.7
Pneumatic cylinders	N/A	104.5	101.5
Tie rod	N/A	103.3	102.7
Shock absorbers (not for vehicle suspension, hydraulic & pneumatic)	N/A	N/A	100.9
Fluid power hose & tube fittings	**107.9**	**107.1**	**106.1**
Fittings for metal/plastic tubing	106.6	106.6	106.1
Hose end fittings & hose assemblies	108.6	107.4	106.1
Other hose connectors	109.6	109.6	104.8

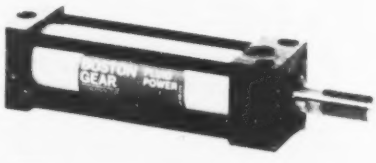
Producer Price Index information reproduced above is provided by the U.S. Department of Labor, Bureau of Labor Statistics.

N/A = not available

For more information regarding the PPI, contact Stephen Latin-Kasper, NFPA Senior Statistician, (414) 778-3358.

Check it out

The NM 3196 non-metallic process pump handles severe corrosives and conforms to the dimensional requirements of ANSI B73.1. The wet end parts are made of a high-strength molded material for high corrosion resistance and temperature capabilities to prevent wicking of pumpage and delamination. *Goulds Pumps Inc.* **Circle 40**



Weight and cost savings are generated by the aluminum construction of a new line of pneumatic and hydraulic cylinders. The series A10 cylinders are NFPA/JIC interchangeable and come in eight standard bore diameters. A small bore line is also available. *Boston Gear.* **Circle 83**

Constructed of corrosion resistant CPVC, the series HD (horizontal diffuser) pumps are designed for higher pressure applications where metallic pumps are not acceptable. They can handle flow capacities to 104 gpm with pressure up to 150 TDH. *Filter Pump Industries.* **Circle 53**

Slow movement in transportation

The news continues to be good for transportation buyers. New statistical revisions show that recent rate increases were somewhat lower than previously estimated. More important, estimates of future rate hikes are also being toned down.

As for the recent past—revised numbers show that last year's overall average rate increase came to only 1.9%—down significantly from the previous 2.8% estimate. And for 1986, only a 1.2% overall boost is seen—less than half the estimate of just three months ago.

Why have these rate boosts been downgraded so significantly? Wharton economists, in their latest quarterly rundown prepared exclusively for *PurchasingWorld*, cite several factors: lower than anticipated energy costs, lackluster demand (industrial production will rise by less than 1% this year), and more-than-ample carrier capacity.

And there isn't likely to be any radical acceleration next year. The average freight increase may be a bit higher than in 1986 (Wharton pegs it at 2.7%). But it is still under the previous 3.3% estimate for 1987.

Even 1988 looks fairly good. Forecasts call for about a 3% increase in industrial production, and energy costs are expected to begin rising again. The average rate increase is put at only 4.2%.

The intermodal movement

Also worthy of note is the continued meshing of rail and truck services. The latest move toward intermodalism: Union Pacific's decision to buy Overnight Transportation Co., the nation's fifth largest freight trucking outfit. Similar moves include Burlington Northern's purchase of six motor carriers over the last three years and the Interstate Commerce Commission's review of the proposed purchase of North American Van Lines by Norfolk Southern Corp.

The effect of intermodal consolidations like these on transportation prices is hard to gauge. While customers who take advantage of both modes in a given freight run may receive price breaks because the truck and rail lines are affiliated, the reduced competition will likely provide some offsetting upward pressure on prices.

With these trends in mind, here's a more detailed mode-by-mode rundown:

■ **Rail:** Ton-miles fell 0.3% (to 624 billion) in the first 37 weeks of 1986, according to the American Association of Railroads. But some late 1986 economic recovery could put the total back into the plus column for the year as a whole—but only barely. Piggybacking is about the only buoyant area here—with year-to-date traffic running close to 9% above year-earlier levels.

Because of the lackluster overall performance, rate increases this year will only be around 2.0%—actually under last year's newly revised 2.4% reading. But increasing economic activity (and hence rail traffic) next year will permit about a 2.9% increase. And rising output costs will intensify this trend in 1988 when prices are projected to rise 4.3%.

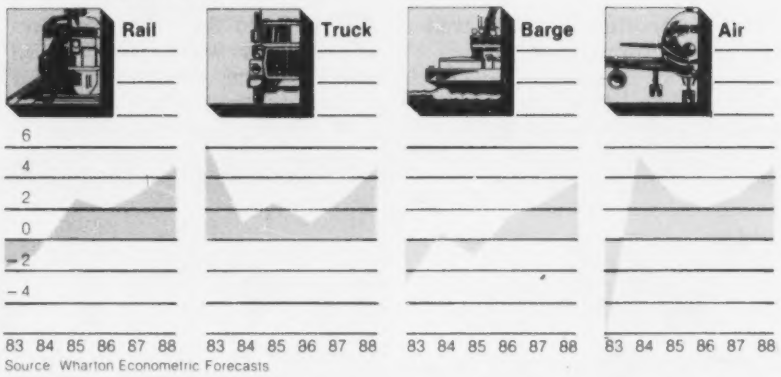
■ **Trucking:** It's been a fairly good year for the industry which now expects a 5% overall tonnage gain. But because of lower fuel costs and continued cutthroat competition, the overall rate increase should come to only 0.9%—well under last year's revised 2.1% estimate.

This figure, however, is expected to accelerate to 2.7% next year and to 4.3% in 1988. But both these later estimates are fractionally under those made just three months ago.

■ **Barges:** Overcapacity, which has spawned discounting and a net decline in prices since 1982, continues

Freight cost outlook by mode

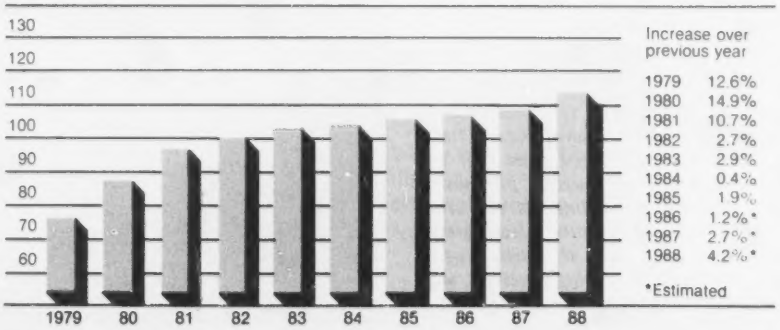
(Percent increase over previous year)



Source: Wharton Econometric Forecasts

PurchasingWorld freight rate index

(1982 = 100)



to be a problem. But the glut is finally beginning to diminish. Operators have been scrapping between 300 and 500 units annually.

Rates, which dropped 1.5% last year, are projected to edge up 1.6% in 1986. Further acceleration is seen for next year and in 1987 when quotes are expected to rise 2.4% and 3.7% respectively. But that would still leave this mode with the lowest rate of increase among the major transportation services.

■ **Air:** Freight traffic has fared quite well so far this year—rising about 12% above comparable 1985 levels. But rate hikes are being held down by price wars and lower energy costs. The average 1986 advance is expected to be only about 2.1%. Some slight acceleration is expected for 1987 and 1988 when advances are projected at 2.9% and 4.4%.

PW

Skyway cuts cross-country shipping costs

Skyway Freight Systems Inc. is now offering a four-day, transcontinental, less-than-truck-load (LTL) Ex-

press Truck air-ride service as an alternative to air freight. Designed to reduce shipping costs, the service also provides computerized freight tracking.

Express Truck customers have real-time access to the status of in-transit shipments via their desktop computers or by telephone to Skyway. This allows customers to upgrade or downgrade shipments to faster or slower transit times, depending on requirements or priorities. For more information

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